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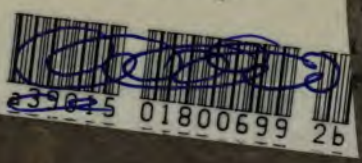

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AGRICULTURE,

VICE.

Forester.

THE NATIONAL FOREST MANUAL.

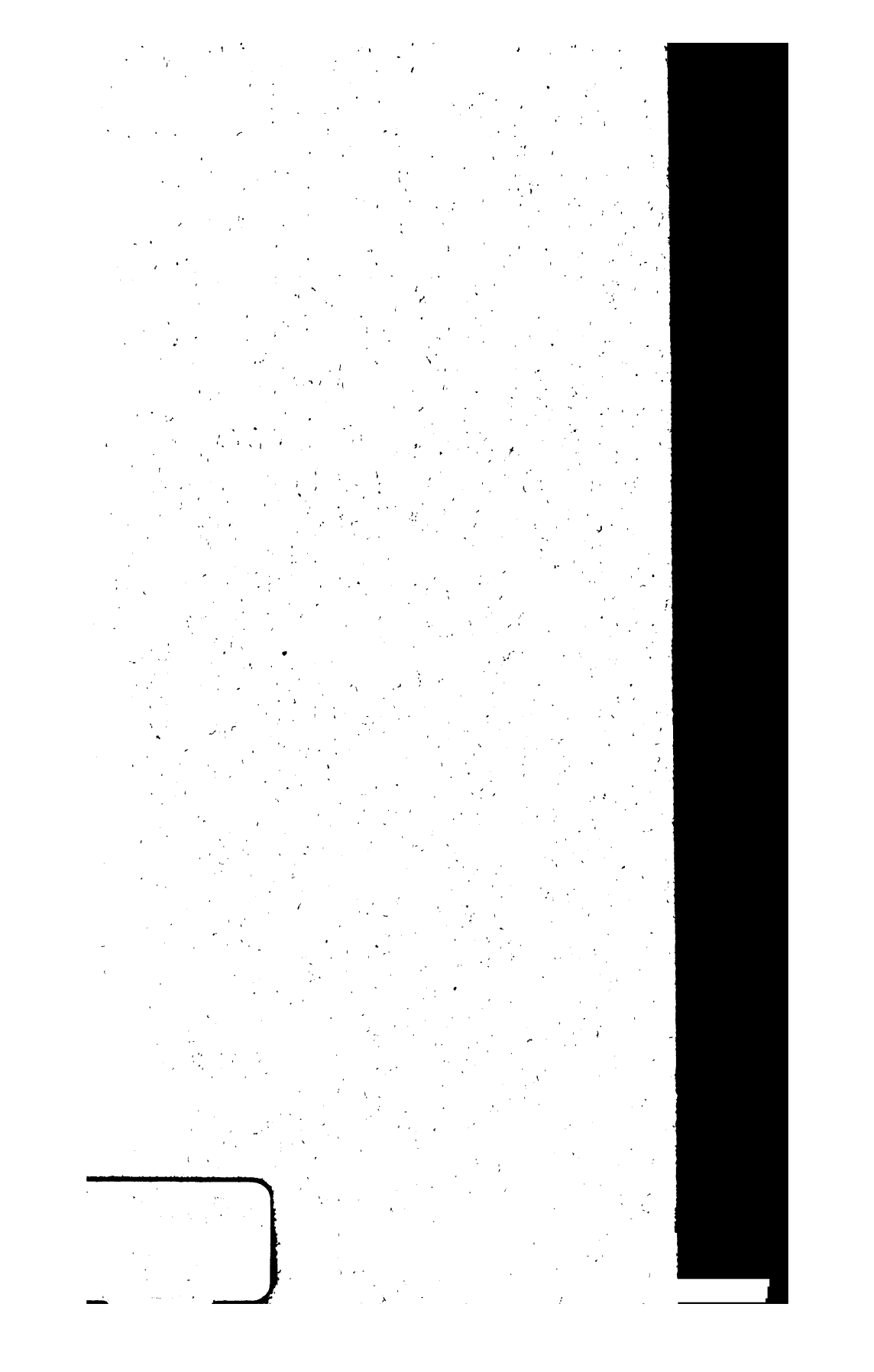
REGULATIONS OF THE SECRETARY OF AGRICULTURE AND INSTRUCTIONS TO FOREST OFFICERS RELATING TO AND GOVERNING TIMBER SALES, ADMINISTRATIVE USE, TIMBER SETTLEMENT, AND THE FREE USE OF TIMBER AND STONE UPON NATIONAL FOREST LANDS.

ISSUED BY THE
SECRETARY OF AGRICULTURE
TO TAKE EFFECT
DECEMBER 1, 1905.

TIMBER SALES.
ADMINISTRATIVE USE.
TIMBER SETTLEMENT.
FREE USE.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1905.

STRY DEPARTMEN



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U. S. DEPARTMENT OF AGRICULTURE,
FOREST SERVICE.
HENRY S. GRAVES, Forester.

THE NATIONAL FOREST MANUAL.

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FORESTRY DEPARTMENT

FOREST DEPARTMENT

The Secretary * * * may make such rules and regulations * * * as will insure the objects of such reservations, namely, to regulate their occupancy and use and to preserve the forests thereon from destruction; and any violation of the provisions of this act or such rules and regulations shall be punished [by $500 fine or 12 months' imprisonment, or both] as is provided for in the act of June 4, 1888, amending section 5388 of the Revised Statutes of the United States. (Act of June 4, 1897, 30 Stat., 11.)

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UNITED STATES DEPARTMENT OF AGRICULTURE,
OFFICE OF THE SECRETARY,
WASHINGTON, D. C.

By virtue of the authority vested in the Secretary of Agriculture by the act of Congress of February 1, 1905 (33 Stat., 628), amendatory of the act of Congress of June 4, 1897 (30 Stat., 11), I, James Wilson, Secretary of Agriculture, do make and publish the following regulations for timber sales, administrative use, timber settlement, and the free use of timber and stone upon National Forest lands, the same to supersede all previous regulations for like purposes and to be in force and effect from the 1st day of December, 1911, and to constitute a part of the Use Book.

In testimony whereof I have hereunto set my hand and official seal, at Washington, D. C., this 31st day of October, 1911.

JAMES WILSON,
Secretary of Agriculture.

THE NATIONAL FOREST MANUAL.

REGULATIONS.

TIMBER SALES.

Reg. S-1. No timber shall be designated for cutting, by stamping or otherwise, until the officer approving the sale is satisfied that the cutting will preserve the living and growing timber, promote the younger growth, and be compatible with the utilization of the Forest. Upon application for the purchase of any timber or in any cases where timber is to be advertised in advance of application, such timber shall be examined and appraised, and the area from which the timber is to be cut shall be described by legal subdivisions or otherwise. The officer making the field examination shall report the quantity and value of the various kinds of timber involved, and shall base his appraisal upon the character of the timber, the cost of logging, transportation, and manufacture, and the sale value of the manufactured products at practicable markets.

Appraisal of timber.

Reg. S-2. The Secretary of Agriculture will prescribe each year, upon data and information furnished by the Forester, the maximum amount of dead, matured, and large-growth timber that may be cut on each National Forest.

Limitation of annual cut.

The Secretary of Agriculture will prescribe each year, upon data and information furnished by the Forester, the maximum and minimum stumpage prices at which the timber on each National Forest or designated portion thereof shall be appraised. Appraisals higher than the established maximum and lower than the established minimum shall be made by Forest officers, in so far as the local conditions in each specific sale warrant. No appraisals at less than the established minimum or more than the established maximum shall be approved by any Forest officer authorized to sell timber until the approval of such appraisals by the Secretary of Agriculture has been secured.

Maximum and minimum prices.

Reg. S-3. The Forester is authorized to make timber sales for any amount on any National Forest, provided the limit fixed by the Secretary for any Forest is not exceeded by the year's cut, under sales and free use on such Forest; and to delegate this authority for any specified amounts to the district foresters, but in no instance to exceed 20,000,000 feet board measure. The district forester may in turn delegate authority

Authority to make sales.

to supervisors to make sales for specified amounts, which in no instance shall exceed 2,000,000 feet board measure. All supervisors may, without special authorization, make sales of timber and cordwood in amounts not exceeding $100 in value in any one sale. The supervisor may authorize subordinate Forest officers to make sales of timber and cordwood in amounts not exceeding $50 in value in any one sale.

Deposits.

Reg. S-4. The supervisor may, in his discretion, require that a deposit be made with the proper United States depository before any timber applied for is examined. In every case where a supervisor decides to recommend a sale of timber for which advertisement is required by law, he will notify the applicant to forward to the proper United States depository such part of the purchase price as will be sufficient to cover the cost of advertising; such deposit to be applied to the purchase price in case the sale is made to the depositor; to be refunded in case the sale is made to some one other than the depositor; to be retained in the discretion of the officer approving the sale, if, through fault of the depositor, no sale of the timber is made.

Payments and refunds.

Reg. S-5. No timber shall be cut under any timber sale contract until it has been paid for. Refunds may, in the discretion of the Forester or district forester, be made to depositors of such sums deposited by them to secure the purchase price of forest products as may be found to be in excess of the amounts actually due the United States. Refunds or payments may also be made to the rightful claimants of such sums as may be found to have been erroneously collected for timber or other forest products sold from lands within, but not a part of, a National Forest.

Installment payments.

Reg. S-6. In any sale the timber may be paid for in one or more payments, as agreed. In sales of $100 or less the partial payments must not exceed three.

Modification of contracts.

Reg. S-7. Modifications of contracts for the sale of timber will not be allowed except in those cases where the full performance of the contract by the purchaser is rendered inequitable and unjust by some act of the United States, or except where the modification is sought in respect to the unexecuted portion of the contract and such modification would not be prejudicial to the interests of the United States. Modifications, where proper, within the meaning of this regulation, may be made by the officer approving the sale, or by his superior officer.

Advance cutting.

Reg. S-8. No timber will be sold, other than in amounts not exceeding $100 stumpage value, in advance of advertisement, except in cases of unusual emergency. All applications for emergency sales of timber will be submitted to the Secretary of Agriculture for approval, with a statement setting forth the reasons for the emergency. When application is made for timber to meet an unusual emergency the Forest officer authorized to make the sale will, when practicable and proper, include in the advertisement of such timber a sufficient quantity of other timber in the same locality and of the same class to satisfy such other bids as may be reasonably anticipated. After approval by the Secretary, the Forest officer may, in sales not exceeding the amount which such officer is authorized to approve, permit the cutting and removal of

timber in advance of the award, when the applicant has made a deposit covering the value of the timber to be cut and removed, and has agreed to pay for all timber actually cut under the privilege of advance cutting at the rate of the highest price bid for the whole amount of timber advertised, or, if no bids are received, at the rate named in the advertisement. When necessary to protect the Government against loss a bond will be required.

Private sale.

Reg. S-9. After any timber has been advertised and no satisfactory bid has been received, or if the bidder fails to complete the purchase, Forest officers may, within their authorization, dispose of it at private sale, in quantities to suit purchasers, without further advertisement, at prices not lower than those named in the advertisement.

Timber may also be disposed of at private sale without advertisement where the stumpage value of the timber does not exceed $100.

Prevention of monopoly. Award of sales to trespassers.

Reg. S-10. In awarding advertised timber of a value exceeding $5,000, allotments at the highest price offered may be made to several bidders to prevent monopoly. Bids submitted by parties who have trespassed upon any National Forest will not be considered unless full settlement has been previously made for such trespass.

Exportation of timber.

Reg. S-11. Timber cut from any National Forest may be exported from the State or Territory in which the National Forest is situated, except that from the Black Hills National Forest in South Dakota only dead and insect-infested timber may be exported from the State, and this only until the date upon which the Forester shall certify that the ravages of the destructive insects in said Forest are practically checked, but in no case after such date or dates as Congress has specified or shall hereafter specify. Timber cut from any National Forest in Alaska may be exported therefrom and sold anywhere, upon certification by the supervisor that the timber has been purchased and cut from a National Forest in Alaska.

Conditions of sale.

Reg. S-12. No trees on National Forest lands, or from any unpatented claim within National Forests, shall be cut, or otherwise killed, injured, or destroyed, except under permit or where allowed by law in the development of the claim.

No trees on any unpatented claim within National Forests shall be cut under permit, until the written consent of the claimant has been filed with the Forest supervisor, except in emergencies arising from insect infestation.

No live trees shall be cut under any contract until marked or otherwise designated by a Forest officer.

No timber cut under any contract shall be removed from the place selected for scaling, measuring, or counting until it has been scaled, measured, or counted and stamped by a Forest officer.

No person except a Forest officer shall stamp any timber belonging to the United States upon a National Forest with the regulation marking ax or with any instrument having a similar design.

All saw timber will be scaled by Scribner Decimal C log rule, as used by the Forest Service.

Reg. S-13. The period allowed for the removal of timber, which in no instance shall exceed five years, except in special cases upon specific approval by the Secretary, will be fixed in the agreement, and in sales in which a period of two or more years is allowed for the removal of the timber, the minimum amount to be removed each year must be specified, except in unusual cases. The Secretary may, in his discretion, when circumstances warrant, extend the time beyond a period of five years; but such extension will be granted only to prevent hardship in cases where the failure to remove the timber within the five-year period is due to circumstances over which the purchaser had no control.

Time limits.

Reg. S-14. The officer approving any timber-sale contract may require the purchaser to furnish a bond for the satisfactory completion of the contract.

Bonds.

Reg. S-15. The disapproval of an application for the purchase of timber or for the modification of an existing contract by the officer authorized to approve such application shall be considered final unless written notice of appeal to the next superior officer, district forester, Forester, or Secretary, as the case may be, is filed with the officer disapproving such application within 30 days from the receipt of his decision. All appeals arising from the enforcement or execution of the provisions of a timber-sale contract shall be made in the first instance to the Forest supervisor. His decision thereon shall be considered final unless written notice of appeal to the district forester is filed with the supervisor within 15 days from the receipt of his decision. Appeals from the decisions of the district forester to the Forester or from the decisions of the Forester to the Secretary may be made by filing written notice with the officer from whose decision appeal is taken within 15 days from the receipt of such decision.

Appeals.

Reg. S-16. The use of steam engines or steam locomotives in operations on National Forest lands under any timber-sale contract or under any permit is prohibited unless they are equipped with such spark-arresters as shall be approved by the Forest supervisor, or unless oil is used exclusively for fuel.

Use of steam engines or locomotives.

ADMINISTRATIVE USE OF TIMBER.

Reg. S-17. The Forester, and the district foresters within the amount which they are authorized to sell, may remove and sell or dispose of, under free-use permit or otherwise, as shall be most advantageous to the United States, any timber upon the National Forests when such removal is actually necessary to protect the Forest from ravages or destruction, or when the use or removal of timber is necessary in the construction of roads, trails, cabins, and other improvements on the National Forests or in experiments conducted by the Forest Service. The authority conferred by this regulation may be delegated by district foresters to Forest supervisors.

TIMBER SETTLEMENT.

Reg. S-18. When timber on National Forest land is cut, damaged, killed, or destroyed in connection with the enjoyment of a right of way or other special use it shall not be necessary to advertise it for

sale, but payment therefor may be required at such rate or rates as may be fixed by the officer authorized, under the timber-sale regulations, to sell the amount of timber involved, but in no case for less than the minimum or for more than the maximum price established by the Secretary of Agriculture, unless the authority of the Secretary is secured. When, however, a right of way or other special use is granted within a National Forest in Alaska, the supervisor may, without charge, allow the cutting of timber when this is necessary for the proper enjoyment of the special use.

FREE USE OF TIMBER AND STONE.

Reg. S-19. The Secretary of Agriculture will determine for each fiscal year, upon data to be furnished by the Forester, the maximum amount of timber to be cut under free use on each Forest, which amount shall form a part of the total maximum cut for the Forest. The Forester may grant free-use permits for timber not exceeding $500 in value, and may delegate this authority to subordinate officers. Permits for timber in excess of $100 in value, except in cases of unusual emergency, will be granted only for public purposes. Supervisors, unless otherwise authorized, may not grant permits for material exceeding $100 in value. All Forest officers whom the supervisor may designate are authorized to grant free-use permits up to $20 in value. The Forester is also authorized to grant free use of stone and to delegate this authority to subordinate officers. All applications for free use of timber of value above $500 will be submitted to the Secretary of Agriculture for approval.

By whom granted.

Reg. S-20. Free-use permits may be granted to bona fide settlers, miners, residents, and prospectors for minerals, who may not reasonably be required to purchase, and who have not on their own lands, or claims, or on lands controlled by them, a sufficient or practically accessible supply of material suitable for the purposes named in the law. They may also be granted to school and road districts, churches, or noncommercial cooperative organizations of settlers desiring to construct roads, ditches, reservoirs, or other similar improvements for mutual or public benefit. Free use may be granted to other branches of the Federal Government. Free use may be granted for consumption outside the State in which the National Forest is located, except from the Black Hills National Forest in South Dakota, on which Forest the free use of dead and insect-infested timber only may, until the date upon which the Forester shall certify that the insect ravages are practically checked, but in no case after such date or dates as Congress has specified, or shall hereafter specify, be granted for consumption outside the State.

To whom granted.

Reg. S-21. Trespassers will not be granted free use until full settlement has been made by them. Free use of material to be used in any business will be refused, as, for example, to sawmill proprietors, owners of large establishments or commercial enterprises, companies, and corporations.

To whom refused.

Reg. S-22. No applicant will be given more than two free-use permits in one year, nor may the aggregate amount of material granted in the two permits exceed $20 in value, except in cases of great and unusual need, or in the case of

Amount.

school and road districts, churches, and noncommercial cooperative organizations of settlers, when the supervisor may, in his discretion, extend the amount to any value not exceeding $100, or the value named in his authorization from the district forester. If the permittee fails to remove timber within the time allowed, the Forest officer may grant the timber to another applicant. The time allowed in permits may be extended by the officer issuing them in cases of unusual emergency.

Restrictions on free use of saw timber.

Reg. S-23. Green saw timber will not be granted to any applicant who does not do his own logging, unless he is physically incapacitated. Exceptions, however, may be made in unusual cases in the judgment of the supervisor. All free-use material may be sawed and all except green timber may be cut for the permittee by an agent, but the work so done must not be paid for by a share of the material. On Forests where a limited supply or other conditions justify it, the free use of all green saw timber or both green and dead saw timber may be refused.

Free use without permit.

Reg. S-24. Necessary cutting of timber in surveying for lawful projects may be done without permit. Unnecessary cutting is prohibited.

No free-use material, except the small quantities actually needed by transients, will be taken without a written permit.

Free use areas.

Reg. S-25. Supervisors may, with the approval of the district foresters, establish temporary free-use areas from which bona fide settlers, miners, residents, and prospectors for minerals may take, in quantities specified in Regulation S–22, dead fuel timber, dead fencing material, either or both in the discretion of the district forester, without the material being scaled or measured by a Forest officer. While permits are required in all cases, it is not necessary that they be obtained in advance when the material is secured from a designated free-use area. In every instance where a permit has not been obtained in advance, the person taking material from a temporary free-use area shall promptly thereafter notify the Forest officer in charge of the district in which such area is located of the date of removal, and of the amount, value, and class of material so taken. Upon receipt of such notification the Forest officer will issue the necessary permit.

Sale of material prohibited.

Reg. S-26. Timber or other forest products received under a free-use permit shall not be sold.

Special conditions in Alaska.

Reg. S-27. Settlers, farmers, prospectors, fishermen, or similar persons residing within or adjacent to National Forests in Alaska may take, without permit and free of charge, green or dry timber from the Forests, and driftwood, afloat or on the beaches, for their own personal use, but not for sale; provided, that the amount of material so taken shall not in any one year exceed 20,000 feet board measure, or 25 cords of wood; and provided further, that the persons enjoying this privilege will, on demand, forward to the supervisor a statement of the quantity of material so taken and a description of the location from which it was removed.

PROCEDURE AND INSTRUCTIONS IN TIMBER SALES, ADMINISTRATIVE USE, TIMBER SETTLEMENT, AND FREE USE.

UNITED STATES DEPARTMENT OF AGRICULTURE,
FOREST SERVICE,
Washington, D. C., October 31, 1911.

The following procedure and instructions are hereby established and issued, to take effect December 1, 1911, governing the enforcement of the regulations of the Secretary of Agriculture relating to timber sales, administrative use, timber settlement, and the free use of timber and stone upon the National Forests.

H. S. GRAVES,
Forester.

Approved.
JAMES WILSON,
Secretary of Agriculture.

TIMBER SALES.

LIMITATION OF ANNUAL CUT.

The supervisor of each Forest will recommend to the district forester annually on April 1 the maximum amount of timber which should be cut from the Forest during the ensuing fiscal year, which shall include a specified amount which may not be exceeded under free use.

Determination.

On Forests for which working plans have been prepared, the working plan will provide a basis for determining what the maximum annual cut should be. Where no working plan exists, the maximum cut will be based upon the most accurate estimate of the stand of merchantable timber, assuming a rotation based on the best available growth data.

On Forests or working units where the demand is very great as compared with the supply, much more care must be exercised in determining the limitation than where the demand is comparatively light and there is no danger of overcutting. When market conditions are such that it is possible to utilize small timber from needed thinnings or inferior material suitable for minor uses which would otherwise go to waste, the limitation may be higher than if it is possible to market only large material suitable for saw timber.

Special attention must be given to compartments containing protection Forests. Where such areas occur the recommended cut should be greatly reduced or the areas eliminated in the calculations.

On two or more adjacent Forests where conditions are very similar and the general plan of management is the same, it may be advisable,

where the timber should be cut and it is possible to obtain purchasers, to treat the maximum cut for a group of Forests as a whole. To do this special authority must be obtained from the Secretary.

MAXIMUM AND MINIMUM STUMPAGE PRICES.

The supervisor of each Forest will recommend annually to the district forester on April 1 the maximum and minimum stumpage rates which should be fixed for the Forest for the ensuing fiscal year.

Maximum and minimum stumpage prices will be recommended, with such classification as to species, accessibility, and grade of material as may be necessary to cover adequately all conditions existing on the Forest. Flat rates applicable to two or more species should be recommended wherever advisable. All rates should be based upon the thousand feet, board measure, and will be applied to other units of quantity in ratios established by these instructions or specifically approved by the Forester. The rates recommended should be based as far as practicable upon those obtained in current sales, with reasonable latitude to make them applicable to the more or less accessible and desirable timber.

District office procedure—maximum and minimum rates and limitation of cut.

Upon receipt and review of the supervisor's recommendations on maximum and minimum stumpage rates and limitation of cut, a letter in triplicate will be prepared in the district office annually by April 15. The original and one carbon will be forwarded for the signature of the Forester and the approval of the Secretary of Agriculture, limiting the annual cut and establishing maximum and minimum rates on the Forest for the following fiscal year. After approval the original will be retained by the Forester and the carbon returned to the district forester, who will fill in the signature on the third copy and send it to the supervisor.

CLASSIFICATION OF SALES.

Sales are divided into the following classes:

By amount.

Class A: Ranger's sales, no one sale exceeding $50 in value.

Class B: Supervisor's sales, no one sale exceeding $100 in value.

Class C: Supervisor's sales for such amounts exceeding $100 in value as the supervisor is authorized to advertise and sell, in no case over 2,000,000 feet board measure.

Class D: District forester's and Forester's sales exceeding the amounts which supervisors are authorized to sell.

By advertisement.

Unadvertised sales: Sales not exceeding $100 in amount may be made for not less than the appraised value of the timber and need not be advertised.

Advertised sales: Sales exceeding $100 in amount must be advertised.

Private sales: Timber which has been advertised but for which no satisfactory bid has been received may be sold at any time at not less than the highest bid received and in no case at less than the minimum price specified in the advertisement.

CLASS A: RANGER'S SALES.

If an examination of the timber as outlined on page 36 shows that it should be sold, the Forest officer will designate the timber to be cut and fix the terms of sale.

Contract.

The contract will be prepared in triplicate and executed and approved in duplicate. The purchaser should send the required payment to the proper United States depository with a letter of transmittal given him by the Forest officer, who will fill out two copies, mark one "Duplicate" and forward it to the supervisor. Remittances should be made by postal money order, express order, or New York draft. Currency may be sent at owner's risk. Postage stamps, foreign money, uncertified checks, or defaced coin will not be accepted. The Forest officer, upon assurance that the required payment has been forwarded to the proper United States depository, will approve both copies of the contract and permit cutting and removal. He will forward the original to the supervisor, give the duplicate to the purchaser, and keep the triplicate for his files.

Modifications of contracts.

Extension of cutting period, modification of the contract, or postponement of brush piling may be approved by the officer approving the sale, under the limitations imposed by regulation S–7. Copies of all such modifications, including extensions, shall be sent to the supervisor.

Maps and Forest description.

Copies of the map and Forest description will be sent to the supervisor with the other papers. In sales of dead timber only, however, such copies need not be furnished unless specifically required by the supervisor.

Procedure, supervisor's office.

Upon receipt from the ranger of the original of the contract and duplicate letter of transmittal in the supervisor's office they will be examined as to their correctness and to determine if consistent with approved and existing rates and policy. A white timber sale record card (Form 615) will be filled out and filed alphabetically. The duplicate letter of transmittal will be placed in a reminder file, which will be examined weekly and the ranger notified of cases in which payments are two weeks late. Upon receipt from the district fiscal agent of the original letter of transmittal with the proper notation of receipt, the amount paid will be checked against the amount due, as shown by the letter of transmittal, and the amount paid and date of receipt entered on the timber sale record card. The original will then be forwarded to the payee and the duplicate, with a notation of payment received, to the ranger. Should the notification of receipt reach the supervisor before the letter of transmittal from the ranger, the data will be entered on a timber sale record card and completed upon receipt of the letter of transmittal and contract from the ranger.

Cutting reports.

Unless required by the supervisor, cutting reports (Form 820) need not be submitted until the sale is ready for closing. They will be compared with the card record as directed under "Records and reports," page 59.

Closing.

The ranger will submit a cutting report (Form 820) in duplicate with his recommendations. If approved by the supervisor the duplicate copy will be stamped "This case is closed" and returned to the ranger, who will transfer the

folder to the closed files. The supervisor will retain the original and will transfer the folder and the card (Form 615) to his closed cases.

CLASS B: SUPERVISOR'S SALES NOT EXCEEDING $100 IN VALUE.

Procedure. Application may be made through any Forest officer, but the supervisor must approve the contract. If the latter decides that a sale should be made, after an examination in accordance with the instructions on page 36, the applicant should forward to the United States depository the payment required, and receive from the supervisor an approved copy of his contract. Procedure in other respects follows that outlined under class A sales.

Maps and Forest description. Where no living timber is involved, maps or Forest descriptions need not be prepared unless they are required by the supervisor or are necessary in the judgment of the Forest officer making the examination.

May not exceed $100. Since the law definitely limits the amount of timber which can be sold in an individual sale without advertisement to a value of not more than $100, great care will be taken, in making class B sales, that the value does not exceed $100. It is safer to make the sale a little under the $100 limit to allow for possible excess cutting. If the value of the timber cut exceeds $100 it will be necessary to make a new sale of the amount cut in excess, but where the amount of a sale together with a small overcut does not exceed $100 the overcut should be accounted for as an excess cutting on the original contract.

Repeated sales. Repeated sales of unadvertised timber to the same purchaser, in order to avoid advertising, are not permitted.

CLASS C: SUPERVISOR'S ADVERTISED SALES.

Application. The amount of timber which can be advertised is limited to the amount named in the supervisor's letter of authority, whether the timber is advertised under a general notice or in response to an application. This authority is given only to the person named in the letter, and is not incident to the office.

Upon receipt of an informal application to purchase timber the Forest supervisor will determine, in accordance with the procedure outlined under "Examination of timber applied for," on page 36, whether the sale can be made.

The formal application will be prepared in quadruplicate. Two copies will be transmitted to the applicant, the original of which should be executed and returned to the supervisor. A copy will be forwarded to the ranger.

Upon receipt of the formal application or upon receipt of the report in general notice sales, the case will be recorded on a salmon-colored timber-sale record card (Form 615) which will be filed under timber sales alphabetically.

Notice of sale. The notice of sale will be prepared in triplicate by the supervisor as soon as the application is approved and the advertising deposit of $50 has been made. The signed original will be sent to the publisher; the first carbon, on which the name of the newspaper is entered, will be sent to the district forester, and the second carbon filed.

As soon as the first publication has appeared, it should be compared with the file copy for mistakes. One copy of Form 935, with published notice attached, must be sent to the district forester, and a second copy filed by the last date for receiving bids as a reminder of the expiration of the advertisement.

Report of advertisement.

The form of notice of sale and further instructions are given under "Advertisement," page 20.

The original applicant and other prospective bidders will be notified as soon as publication has begun, instructed to forward bids within the period specified in the notice of sale, and furnished with Form 941 and salmon-colored bid envelopes. (See p. 23, under "Bids and awards.")

Bids and awards.

The supervisor should notify the successful bidder that the sale has been awarded to him and that the final agreement, and bond if required, will be sent to him within a specified time.

A copy of all bids submitted shall be marked "For the information of the district forester," and forwarded to the district office.

Further instructions are given under "Bids and awards," page 23.

The final contract will be prepared on Form 202 in quadruplicate and executed and approved in duplicate. The approved original is for the supervisor's files, the duplicate for the purchaser, the third copy will be forwarded immediately after approval to the district forester, and the fourth copy, showing the dates and signatures of execution and approval, should be sent to the officer in charge of the sale.

Contracts.

Further instructions are given under "Contracts," page 23.

If a bond is required the supervisor will prepare it in duplicate on Form 377, send the original to the purchaser for execution with the contract and the duplicate to the district forester properly filled in immediately after the execution and approval of the original. The original will be approved by the supervisor and filed with his record of the case.

Bonds.

Further instructions are given under "Bonds," page 24.

If advance cutting is allowed by the Secretary, the application will be prepared in quadruplicate and executed in duplicate. The original agreement after approval by the supervisor is for the supervisor's files, the duplicate for the purchaser, and the third and fourth copies with the dates of execution and approval written in for the district forester and the officer in charge of the sale. Instructions governing advance cutting are given on page 25.

Advance cutting.

The letter of transmittal (Form 861) will be made out in duplicate by Forest officers and the original sent to the purchaser to be forwarded with each deposit to the proper United States depository; the duplicate will be filed in the supervisor's office in a waiting file and handled thereafter as in class A sales.

Letter of transmittal.

Copies of the map, estimate, report, application, notice of sale, Form 935, contract, bond, and important modifications will be submitted to the district forester as they are prepared, except the contract and bond, which will be submitted after execution and approval.

District forester's record.

Class C sales will be closed in the same manner as class A sales.

Closing.

Procedure, district office.

The application and report in advertised sales will be examined for the purpose of ascertaining whether they are in accordance with the preceding instructions and with instructions to the supervisor as to price, amount, period, and other conditions. Special care is necessary to see that cutting will be done in accordance with the preliminary or final working plan, and that the plan for marking agrees with the policy adopted for the Forest and type.

The carbon of the notice of sale will be checked, with particular attention to the period allowed for submitting bids, the location of the cutting areas, the estimate, price, and deposits required.

The published notice of sale (Form 935) will be checked with the carbons previously received from the supervisor, and filed as a reminder against the receipt of the contract and bond.

If advance cutting has been allowed, the copy of the application will be reviewed. When the papers have been reviewed, they will be returned to the supervisor, with instructions or comments if necessary. No record will be kept in the district office.

Supervisors who have shown their ability to handle class C sales properly may, in the discretion of the district forester, be authorized to discontinue sending papers to the district office, except when necessary for examination by district assistants to the solicitor of authority of officers of incorporated companies to execute the contract for the company.

CLASS D: DISTRICT FORESTER'S AND FORESTER'S SALES.

District forester's sales, application.

The steps are the same as in class C sales until the supervisor has received the formal application signed by the applicant. If the supervisor decides to recommend the sale, he will notify the applicant to forward $50 to the proper United States depository to cover the cost of advertising, and will send the application to the district forester with the report, estimate, and map. If the supervisor recommends the approval of the application without modification, he will initial in the lower left-hand corner of the first page. If he wishes to recommend any modification of the application or to give a more detailed explanation of any features of the examination or application, he will do so in a letter sent with the other papers.

Sample contract.

Where advisable, a sample contract, unexecuted, containing all of the provisions of the proposed sale, may be submitted to the district forester in lieu of a formal application. When, however, the privilege of advance cutting is desired the applicant will in every instance be required to sign a formal application before his application for advance cutting will be considered.

Card record.

A blue timber-sale record card (Form 615) will be filled out by the supervisor and filed as in class A sales.

The application or sample contract will be examined by the district forester as under class C sales, and if approved, a timber-sale record card (Form 615) will be filled out and filed.

Changes in application.

The supervisor will be notified immediately of any necessary modifications in the application, and will obtain the consent of the applicant to such modifications before proceeding with the notice of sale.

Notice of sale. After approval of the application or sample contract and receipt of deposit to cover advertising, a notice of sale will be prepared in the district office, with two carbons, the original signed by the district forester, and with one carbon sent to the supervisor, who will have it published in accordance with the instructions under "Advertisement," page 20.

Report of advertisement. As soon as the advertisement begins, the supervisor will check the published notice of sale with the file copy for mistakes, and forward Form 935 to the district forester. The published notice of sale (Form 935) will be reviewed by the district forester and filed as a promise card to check the expiration of the advertisement.

Bids and awards. The supervisor will notify the original applicant and other prospective bidders as soon as advertisement is begun, instructing them to forward their bids within the period specified in the notice of sale. He will furnish them with copies of Form 941 and blue bid envelopes.

After the bids are opened, the district forester will immediately notify the supervisor of the names of bidders, the amount of each bid, and the award. See "Bids and awards," page 23.

Contract. A contract, Form 202, will then be prepared by the district forester with four carbons. One copy will be filed and the original and three carbons sent to the supervisor, who will have the original and one carbon executed by the purchaser and return them to the district office. The third copy will be retained in the supervisor's files, and the fourth sent to the officer in charge of the sale. The contract will be submitted to the district assistant to the solicitor for examination. After the district forester has approved both copies, the duplicate will be forwarded to the purchaser through the supervisor and the original filed in the safe.

When the approved duplicate of the contract is received by the supervisor, he will enter the signature and dates of execution and approval on his copy, and notify the officer in charge of the sale in order that the latter may take the same action.

The bond. The bond, if one is necessary, will be prepared in duplicate and the original sent to the purchaser for execution through the supervisor. The executed and approved original will be submitted to the district assistant to the solicitor for examination and will be retained in the district office. The duplicate, with dates and signatures filled in, will be filed with the supervisor.

Advance cutting. Application for advance cutting will be prepared by the supervisor in quadruplicate, and executed and forwarded in duplicate to the district forester. The district forester will review the application, and approve it if satisfactory and such action appears advisable, after obtaining authority from the Secretary. The original will be retained in the district office and the duplicate returned to the supervisor. The supervisor will make the necessary entries on the remaining copies, forward the duplicate to the purchaser, retain the third copy, and send the fourth to the officer in charge of the sale.

If the application is disapproved, the supervisor will be directed to inform the purchaser of the reasons for such action.

Work which may be required of supervisors.

In the discretion of the district forester, supervisors may be required to prepare notices of sale to be submitted with the application, to receive bids, or to prepare the contracts and bonds.

Forester's sales.

For sales which exceed the district forester's limit, the application, together with the report, estimate, map, and the supervisor's and district forester's recommendations, will be forwarded to the Forester for his approval. When the Forester has approved the application, the district forester will sign the notice of sale and proceed with the advertisement. After the contract has been properly executed cutting may begin, but the contract and bond should be forwarded to the Forester for approval, with extra copies for filing. The sale will then be handled as a district forester's sale, except that modifications of the contract can be made only with the Forester's approval.

Where advisable, a sample contract, unexecuted, containing all of the provisions of the proposed sale, may be submitted to the Forester in lieu of a formal application. When, however, the privilege of advance cutting is desired the applicant will in every instance be required to sign a formal application before his application for advance cutting will be considered. Upon approval of the sample contract by the Forester, the district forester will proceed with negotiations with the applicant and advertise the sale if its conditions are accepted by him. It is essential that no final assurances be given to prospective purchasers until the Forester has passed upon the application or sample contract.

ADVERTISEMENT.

Period.

Advertisement of sales of timber exceeding $100 in amount is required by act of June 6, 1900 (31 Stat., 661), for a period of not less than 30 days.

In what papers.

Advertisements must be published in papers included in the yearly authorization issued to the supervisor by the Secretary of Agriculture. If publication in other papers is advisable, the authority of the Secretary should be requested through the Forester.

If the notice of sale is to be published in more than one newspaper, an original copy will be sent to each. The last day for receiving bids named in all the papers must be the same.

Essential features.

The notice of sale must announce the time and place of filing bids, the location and approximate amount of timber, the amount to be deposited, and the name and address of the supervisor from whom full information can be obtained. It will state that the right to reject any or all bids is reserved.

Location of timber.

Great care will be taken to determine and designate closely the location of the timber which is advertised. If the land included in the notice of sale is unsurveyed, the word "approximately" should be inserted in the description of the probable legal subdivisions. Whether the land is surveyed or unsurveyed, the location should be given with reference to watersheds or well-known natural objects, as well as by legal or approximate legal subdivisions, so that if by any chance a mistake is made in naming the subdivision it will not be necessary to readvertise the timber.

Form of advertisement.

The notice of sale of timber for which application has been made should take the following form, with such modifications as may be necessary by reason of varying requirements of the sale:

SALE OF TIMBER. ....., ..., ...
(City.) (State.) (Date.)

Sealed bids marked outside, "Bid, timber-sale application, ...,
(Date of application.)

....." and addressed to the Forest Supervisor, ...
(Name of Forest.)

National Forest, ..., ... (or "to the District Forester, Forest Service,
(City.) (State.)

....., ..." if class D sale), will be received up to and including the
(City.) (State.)

..... day of ....., ..., for all the merchantable dead timber standing or
(Month.) (Year.)

down and all the live timber marked (or designated) for cutting by a Forest officer, located on an area to be definitely designated by a Forest officer before cutting begins, including about ..... acres in approximately sec. ....., T. ...., R. ...., ... M. on the watershed of ..... River, within the ..... National Forest, estimated to be ..... feet board measure of live ..... saw
(Species.)

timber, log scale, and ..... cords of cordwood, more or less. No bid of less than $..... per thousand feet board measure for saw timber and $..... per cord for cordwood will be considered, and a deposit of $..... payable to the order of the ..... National Bank of ....., ..., must be sent to that bank for
(City.) (State.)

each bid submitted to the supervisor (or district forester). Timber upon valid claims is exempt from sale. The right to reject any and all bids is reserved. For further information and regulations governing sales address Forest Supervisor, ... National Forest, ..., ... (or District Forester, ..., ...).
(City.) (State.) (City.) (State.)

.....,
(Signature of forest supervisor or district forester.)

.....
(Title.)

Date for receiving bids.

In order to make the advertisement legal, the last day for receiving bids must be at least 30 days from the first appearance of the advertisement, but need not be the date of its final appearance. Care should be taken, therefore, to see that the date up to which bids will be received, which the supervisor should insert in the copy to be furnished to the publisher, is the same day in the following month as the date of the first publication. If, however, the first publication appears on January 29, 30, or 31, the final date for receiving bids should be March 1, 2, or 3, as the case may be. If the first publication appears in February, the final date for receiving bids should be two days later in March than the date of the first publication. If in any case the last day for receiving bids falls on Sunday or a legal holiday, the final date should be the following day.

Correcting mistakes.

If material mistakes appear, they should be corrected and the date up to which bids will be received changed to the thirtieth day after the first appearance of the corrected advertisement. A full period of 30 days will

thus be allowed for submitting bids. However, the total number of times the notice of sale, whether correct or incorrect, is published should not exceed five.

Sale of a part of timber advertised.

If the notice of sale is to provide for the sale of only a part of the timber advertised, the notice should read, "for all or any part of the merchantable dead timber standing or down and all of the live timber marked (or designated) for cutting, etc."

General notice.

Timber for which there is likely to be a demand and which should be promptly cut for silvicultural reasons may be advertised by a general notice in advance of application to purchase, upon approval by the officer authorized to sell the amount of timber involved.

It is desirable to call the attention of prospective purchasers by such notices to timber which is insect infested, bodies of dead timber which are deteriorating, or timber the removal of which will benefit the Forest.

The advertisement for a general notice should follow the same form as the application notice, given above, with the following changes:

The words "Bid, timber sale application, ---------- (Date of application.), ---------- (Name of Forest.)" should be changed to "Bid, timber sale, general notice, ---------- (Date.), ---------- (Name of Forest.)"

Authority to publish.

Whenever a timber sale is to be advertised, the supervisor will issue to the publisher of the newspaper or other publication in which the advertisement is to appear a Form BF "Authority to publish advertisement," which will be transmitted with the notice of sale and a copy of the advertising rate form. A copy of each Form BF issued will be retained.

In filling out Form BF, the designation of the case, name of Forest, date, name of paper, place of publication, and date and number of the Secretary's authorization must be inserted in the proper blank lines. Other data will be filled in as indicated by the italicized clauses of the following:

> You are hereby authorized to publish the inclosed advertisement for proposals for *the purchase of timber from lands within the* ..... National Forest in the weekly edition of your paper *five* (*5*) times, as follows: Consecutively, preceding the date up to which bids will be received (thirty (30) days from first publication), provided your charges, etc.

The publisher's attention will be directed to the fact that advertisements must be set up like the sample which appears on the second page of Form BF, since charges for display headings can not be allowed. The matter must be set up solid, without paragraphing, and with the signature and title of the officer signing the advertisement "run in."

When the advertisement has run for the time ordered, the publisher of the newspaper will fill out the voucher attached to Form BF and transmit it, with an affidavit of publication, to the district fiscal agent. If the publisher's sworn rates are not already on file, these must accompany the account.

Additional publicity.

In order that large sales may be given all possible publicity, supervisors will, during the period of advertising, post copies of Form 975 where they will attract the notice of the general public.

BIDS AND AWARDS.

Deposits.

Instructions concerning deposits in connection with bids are given under "Payments, deposits, refunds, and transfers," page 27.

Handling of bids.

Envelopes containing bids will be stamped with the date of receipt and filed, unopened, by sales under the date of opening. At 2 o'clock p. m., on the day following the final date for receiving bids, all the bids submitted will be opened by the supervisor or district forester, as the case may be, in the presence of one or more witnesses. Bidders may be present at the opening of the bids if they desire. The original bids should be indorsed with the date opened and a list of those present. Bids for lower rates than those named in the notice of sale can not be considered. If no bids have been received, the applicant will be requested by the supervisor to submit a bid immediately.

Award.

The sale will be awarded to the highest bidder, unless such an award will create a monopoly, or unless the highest bidder is debarred from the use of the National Forest by his previous acts, or the public interest presents some unforeseen objection to the sale.

Whenever practicable, timber for which more than one bid has been received may be allotted among several bidders at the highest price offered by any one of them or at such variations in price, in no case less than that stated in the advertisement, as will equalize differences in the quality or accessibility of the timber on different parts of the sale area.

If any portion of the timber is awarded to another than the applicant, a new timber sale record card will be filled out and filed by the supervisor and also by the district forester in class D sales.

Refunds to unsuccessful bidders.

When the contract is returned, executed, the data on the timber sale record cards will be checked by the officer approving the sale and deposits made by unsuccessful bidders refunded in accordance with the instructions on page 28.

CONTRACTS.

When submitted.

The contract should not be submitted to the successful bidder for execution until assurance is received that the deposit required with the bid has been made.

Prompt execution.

Every reasonable effort will be made by the supervisor to secure the prompt execution of all agreements and bonds. If for any reason the agreement and bond are not executed, the district forester will be notified and the case closed.

Form.

Form 202 will be used in the preparation of contracts, with the insertion of such special clauses as particular cases may require.

If two or more persons who are not partners purchase timber, the names of all will be given in full at the beginning of the contract and

all will be required to sign. The variation in form and requirements for execution when the sale is made to an individual, a partnership, or a corporation, or is a private sale are outlined on Form 202. Unless the contract provides for the sale of only a part of the timber advertised it will follow the advertisement absolutely in the description of the lands and the amount and location of the timber included in the sale.

Evidence of authority.

Evidence of authority of the person who executes a contract or bond on behalf of a corporation will be obtained, and in every case submitted to the district assistant to the solicitor for approval as to its sufficiency. Such evidence will be filed with the approved original of the contract.

As evidence of the authority of the officer signing for any incorporated company, whether purchaser or surety, a copy of, or extract from, the articles of incorporation, the by-laws, or resolutions of the board of directors, whichever it may be that authorizes the officer to execute the papers for the company, will be required. This copy or extract will be certified by the secretary of the company under the corporate seal in substantially the form outlined in Form 319.

The resolution indicated on Form 319 will be required in substantially the following form:

Form of resolution.

It is resolved by the board of directors of the ....., that it is for
(Name of company.)
the best interest of said company that .....
(Name of president or other officer.)
the ..... of said company,
(President, secretary, etc.)
be authorized to execute any and all instruments of any character whatsoever that may be drawn by said company to the United States Government in any and all of its departments now or hereafter and until this resolution is duly revoked, and

....., ... of said
(Name of officer.) (President, secretary, etc.)
....., is hereby directed and authorized to execute and deliver
(Name of company.)
for and in behalf of said company and as its act and deed to the United States Government and any or all of its departments any and all instruments drawn by said company to said Government or any or all of its departments, and to affix to said instruments the corporate name and seal of said corporation.

Witnesses.

When witnesses are required to the execution of any contract, if possible one will be a Forest officer and the other the notary public who takes the acknowledgment of the bond.

BONDS.

When required.

A bond will be required in all sales involving timber above $3,000 in value, and in sales for smaller amounts when it is considered necessary by the approving officer to insure compliance with the contract.

The following table is not intended to establish a hard and fast rule in fixing the amount of bonds, but rather is to be used as a guide.

Amount of bonds. When, because of special conditions, a larger bond is advisable the amounts given in the table should be increased.

Amount of sale.	Amount of bond.
$3,000–$5,000	$500
5,000–10,000	1,000
10,000–20,000	2,000
20,000–30,000	3,000
30,000–40,000	4,000
40,000–75,000	5,000
Above 75,000	$6,000–20,000

Form. Form 377 will be used. The bond will follow the contract absolutely in its reference to the purchaser, the description of the timber, and the terms of the sale. It is essential that the date of the execution of the contract appear in the bond and that the bond be approved on the same date as the contract. The original only will be executed and will be filed with the original of the contract.

Sureties on bonds. Under authority of the acts of August 13, 1894, and March 23, 1910, the Treasury Department issues lists of surety companies authorized to act as surety on bonds to the United States. Only the surety companies on these lists, copies of which will be furnished to district foresters, may be accepted. While surety companies rather than individuals are preferred, purchasers can not be required to furnish corporate surety. The Treasury Department determines the responsibility of the surety companies in the lists, but it is extremely important that the responsibility of individual sureties be established and made a matter of record. If the purchaser is a corporation or a copartnership, sureties other than its officers, stockholders, or partners will be secured.

The responsibility of individual sureties should be established by the signing of the "certificate of solvency" attached to the bond, Form 377, by a judge or clerk of a State court of record, a judge, clerk, or deputy clerk of a United States court, a United States attorney or one of his assistants, a United States commissioner or a postmaster.

Periodic examination of bonds. In accordance with the act of March 2, 1895 (28 Stat., 807), every bond should be examined by the district fiscal agent and the district assistant to the solicitor at least once every two years for the purpose of ascertaining the sufficiency of the sureties.

Evidence of authority. Evidence of the authority of a person signing a bond as principal or surety on behalf of a corporation will be secured in accordance with the instructions under "Contracts," page 23, and filed with the original.

ADVANCE CUTTING.

Applications discouraged. Applications for advance cutting will be discouraged, and will be approved or recommended only to prevent serious hardship or delay or unnecessary expense to the purchaser. Forest officers will encourage purchasers to

submit applications far enough in advance to make advance cutting unnecessary.

Form of application. The application for advance cutting will take the following form:

APPLICATION FOR ADVANCE CUTTING.

(Case designation.)

.....
(Title of approving officer.)

.....
(Address.)

SIR:

....., ..., of ....., ..., hereby
(I or we.) (Name of applicant.) (City.) (State.)

apply for the privilege of advance cutting to the amount of .....
(M feet b. m., cords, etc.)

..... under ..... timber-sale application of .....,
(my or our.) (Date.)

..... National Forest, ... If this application is approved
(State.)

..... do hereby, in consideration of the granting of said privilege, promise
(I or we.)

and agree to deposit with the ..... National Bank of

....., ... (United States depository), to be
(City.) (State.)

placed to the credit of the United States, in advance of cutting, a sum sufficient, in the judgment of the Forest officer in charge, to cover the estimated value of all such timber as may be cut under this application prior to notice of the award of the sale of the timber included in said timber-sale application; and to submit, in accordance with the directions in the notice of sale, based on said timber-sale application, a bid of not less than the minimum rate (or rates) named in said notice of sale, and further to pay said depository for all the timber cut as aforesaid, at not less than the minimum rate (or rates) named in the said notice of sale, or, if a bid higher than the minimum rate (or rates) is received, at the rate (or rates) of said bid. And ..... further promise and agree to cut and remove said timber in strict accordance with all and singular the rules, regulations, and provisions set forth in said application and such modifications thereof as may be made by the approving officer.
(I or we.)

A deposit of ..... dollars ($....) has been sent to said depository to cover the estimated value of such timber as may be cut in advance as aforesaid.

Signed in duplicate this ..... day of ....., 19..

.....
(Signature of applicant.)

Approved at....., under the above conditions, ... 19..

.....
(Signature of approving officer.)

.....
(Title.)

Procedure. All requests for advance cutting will be submitted to the Secretary for approval, through the Forester, in accordance with Regulation S-8. Requests by wire should state the amount, stumpage rates at which the timber will be advertised, and conditions creating an emergency. Upon approval of the request by the Secretary, the formal application will be approved by the

Forest officer having jurisdiction in accordance with the foregoing instructions.

Provision for other bidders.

Whenever it is probable that other bids besides that of the applicant for advance cutting will be submitted, sufficient timber should be advertised as far as possible to satisfy the other bids in the event that they exceed that of the original applicant. Awards of timber should, if practicable, be made to both the original applicant and to such other persons who may have outbid him, at the highest price offered by any bidder. The applicant for advance cutting must, however, be given first consideration in the award, provided that he will contract for all timber cut and to be cut at the highest price bid.

Limitation in amount.

The permit for advance cutting does not give the applicant the right to take all the timber which he has applied for at the rate of the highest bid, but merely to take such timber as he cuts before the completion of the advertisement. In no case will he be allowed to cut timber in excess of the amount covered by his deposit. If the only bid received is from the applicant for advance cutting and it is accepted, the supervisor may allow cutting to continue after the expiration of the advertisement and until the contract is presented for execution if the deposits are sufficient. A bid must be submitted and the contract providing for payment at the highest price bid executed immediately, otherwise cutting will be suspended until these requirements are met.

PRIVATE SALE.

Contracts, including timber which has been advertised but for which no satisfactory bid was received or sales consummated, may be made at any time, through private negotiations, by the officer having authority to sell the amount of timber involved. The price must be not less than the highest price offered if any bid was received, and in no case less than the minimum named in the advertisement. The procedure in classes C and D sales will be followed, except as to advertisement.

SALE OF MATERIAL SEIZED.

In cases of seizure or recaption the seized material may be sold to the highest bidder. Where the value is over $100 it should, if practicable, be advertised if this will result in securing a higher price. It is permissible, however, to secure informal bids, provided the full value of the material can thus be secured. No sale should be made without specific authority and instructions from the district forester, acting upon the advice of the assistant to the Solicitor.

PAYMENTS, DEPOSITS, REFUNDS, AND TRANSFERS.

Payments.

Forest officers will see that no timber is cut or removed in advance of payment, and that a sufficient amount is always on deposit to insure against overcutting. In order that operations may not be delayed, purchasers will be notified in ample time when an additional payment is required. Failure to make prompt payment when requested is cause for suspending operations, provided the amount cut equals in value the amount on deposit or may do so before a second payment can be made. Requests for

postponement of payments can not be considered. In sales of $100 or less the full amount in one payment will, wherever possible, be required in advance of cutting.

Deposits.

In determining the amount of deposits with bids and the size of payments in all but classes A and B timber sales the following schedule may be used as a guide, but may be increased to meet special conditions, such as a large daily cut:

Amount of sale.	Amount of deposit.
Under..... $250	$50
$250- 500	100
500- 1,000	200
1,000- 5,000	[1] 200- 500
5,000-10,000	[1] 500-1,000
10,000-20,000	1,000
20,000-30,000	1,500
30,000-40,000	2,000
40,000-50,000	2,500
50,000-60,000	3,000
60,000-70,000	4,000
Above..... 70,000	[2] 5,000

[1] In even hundreds.
[2] Or more, as required.

Money deposited to cover cost of advertisement and to secure advance cutting may be credited toward the amount to accompany bid.

Refunds.

Deposits to cover cost of advertising and to accompany bids apply on the first payment if the sale is awarded to the depositor, otherwise they will be refunded. If, however, an examination is made and timber advertised as a result of an application, and the purchaser fails to complete the sale, a sum sufficient to cover the cost of making the examination and advertising the timber may be retained, in the discretion of the officer approving the sale. Refunds to bidders will be made on vouchers prepared by the supervisor in class C sales and the district forester in class D sales.

If a purchaser who has deposited money in a timber sale afterwards violates any of the terms of his contract, an amount sufficient to cover damages thereby caused to the United States may be withheld from a refund otherwise due the purchaser.

Purchasers who have complied with the terms of their contract and have cut all the designated timber from a sale area are entitled to a refund of any balance they may have on deposit. When a contract is canceled by mutual agreement, a refund of the amount not due the United States may be made provided the terms of the contract have been complied with. Generally speaking, all money not due the Government on any transaction will be refunded unless the purchaser has willfully neglected to remove his timber within the time specified or has been negligent in carrying out the terms of the contract. Sales will not be closed by supervisors while a balance is due the purchaser without filing a written explanation of the reasons on which the action is based unless the amount is $1 or less. Refunds of $1 or less will not be made unless the purchaser definitely requests it.

In cases in which a purchaser is entitled to a refund the supervisor will prepare a Form A voucher in duplicate. He will see that the amount and date of deposit and the amount and value of the timber cut are correct. When several deposits have been made the date

and amount of each will be given. The proper case designation will be given, so that the transaction may be identified with certainty. Refunds can be made only to the original depositor or his legal representatives, and in the latter case an exemplified copy of letters testamentary or of administration must accompany the voucher. The original will be executed by the depositor or his legal representative and the correctness of the amount certified to by the Forest supervisor, who will transmit it to the district forester for approval before payment.

When the executed original voucher is forwarded to the district forester by the supervisor, the latter should enter on the record card in the case the amount to be refunded as though the refund had already been made. No notice will be sent to the supervisor that the refund has been made. In case a voucher is not approved the supervisor will be notified by the district forester and the refund entry should then be stricken off the card.

Transfers.

Deposits may be transferred to a payor's credit on another transaction of the same class, as from one sale to another, without a written request, but his written consent will be obtained to transfers between transactions of different classes. Deposits may be transferred to the credit of another person only with the written consent of the original depositor. Proper notations will, in each case of transfer, be made on the card records.

The following form, with required modifications, may be used whenever necessary:

(Case designation.)

.....
(Title of approving officer.)

.....
(Address.)

SIR:

....., ..., of ....., ..., purchaser.. of the timber in the above designated timber sale, ... National Forest, respectfully state that ..... have deposited in connection herewith the sum of $.....; that ..... have cut thereunder timber of the value of $....., which is all the timber designated for cutting on the area included in said sale, and that all the terms of the contract have been fully complied with. ....., therefore, request that the balance of $....., due as an overpayment in said sale, be transferred to ..... credit ..... on ..... timber sale of ..... on said National Forest.

(I or we) (Name) (Town) (State)
(I or we)
(I or we)
(I or we)
(my or our) (the) (of) (my or our) (his or their)
(Date)

Signed in duplicate this .... day of ....., 19...

.....
(Signature)

Approved at....., ..., ..., 19...
(City.) (State.) (Date.)

.....
(Signature of approving officer)

.....
(Title)

Letters of transmittal.

Forest users, when asked to make payments, will be furnished by Forest officers with a form letter of transmittal properly filled out to be sent to the depository with the payment. A duplicate will be forwarded at once to the supervisor. Duplicates will be held in a promise file. When the original is received from the fiscal agent and the necessary record made, it will be forwarded to the payor, and the duplicate, with proper notation, returned to the ranger.

MODIFICATION OF CONTRACT.

Verbal modification prohibited.

No Forest officer has or will be given authority to modify any agreement verbally.

Conditions under which modifications will be allowed.

Modification will be made to prevent unnecessary hardship to purchasers, subject to the restrictions stated in Regulation S–7. For example, when the purchaser fails to remove the designated amount of timber in the specified time through unavoidable circumstances, the modification of the contract may be considered, if not disadvantageous to the United States.

Postponement of payments.

Postponement of payments, however, will not be allowed

Consent of sureties.

When a bond has been given, the consent of the sureties must be secured before any modification of contract is approved.

Evidence of authority.

The necessary evidence of authority of the person who signs on behalf of a corporation shall always be obtained.

In all cases applications to modify contracts under the terms of Regulation S–7, will be submitted by or through the district forester to the district assistant to the solicitor for determination of the legality of such modification before it shall be approved.

Form for modification of contract.

The following form, varied as required by conditions, will be used for the modification of contracts in advertised sales:

APPLICATION FOR MODIFICATION OF CONTRACT.

(Case designation.)

.....
(Forest officer who will approve modification.)

.....
(Address.)

SIR:

....., ..., of .....,
(I or we.) (Name of applicant.)

State of ....., purchaser of timber in the above-designated case, ... National Forest, respectfully request that clause .... of the agreement signed in duplicate by ....., on the .... day of ....., 19.., and approved by the
(me or us.)

..... on the .... day of ....., 19.., be
(Title of approving officer.)

modified to read as follows:

"....."

If this application is approved ..... do hereby agree to cut and remove
(I or we.)
said timber in strict accordance with all and singular the terms and provisions of the aforesaid contract, except as herein modified.

[1]..... further agree that if this application is approved a certain bond exe-
(I or we.)
cuted by ..... as principal and .....,.....
(me or us.)
and ..... as suret.. at ....., ...
on the .... day of ....., 19.., and approved by the..... on the
(Title of approving officer.)
.... day of ....., 19.., which was given to the United States of America to insure faithful compliance with the terms of the aforesaid contract, shall bind .....
(me or us.)
and said suret.., and ..... and ..... heirs, executors, administrators,
(my or our.) (its or their.)
successors, and assigns in the same manner as if said modifications had been included in the original contract, to insure compliance with which said bond was given.

Signed in duplicate this .... day of ....., 19...

.....
(Signature of purchaser.)

Witnesses:

.....

.....

Approved at....., under the above conditions ....., 19...

.....
(Signature of approving officer.)

.....
(Title.)

[1] Omit when bond has not been given.

The following form will be used for the consent of sureties to the modification of agreement:

Form, consent of sureties.

CONSENT OF SURETIES.

(Case designation.)

KNOW ALL MEN BY THESE PRESENTS, That whereas we.....,
(Name of surety must be same as in bond.)
of ....., ..., and ....., of
(City.) (State.)
....., ..., are sureties on a certain bond in the sum of ..... dollars
(City.) (State.)
($.....), dated at ....., ..., on ....., ..., 19.., and given to the United States of America by ....., of
(Name of purchaser.)
....., *a corporation organized and existing under*
(Address of purchaser.)
the laws of the State of ..... and having an office and principal place of business in ....., ..., to insure faithful compliance with the terms of that certain timber sale contract signed in duplicate by .....
(Name of purchaser.)

on the .... day of ....., 19.., and approved by .....
(Title of officer.)
on the .... day of ....., 19..; and

Whereas the said ..... has by an instrument in writing dated the .... day of ....., 19.., made application to the
(Name of purchaser.)
..... to have that part of said contract reading
(Title of officer who will approve modification.)
" ..... "
modified to read " ....., "
and has promised and agreed if said application is approved to cut and remove said timber in strict accordance with all and singular the terms and provisions of the aforesaid contract as modified by the conditions set forth in said application:

Now, therefore, we, the said .....
and ....., sureties as aforesaid, do hereby join in said application, and agree if the same is approved our bond shall bind us, our heirs, executors, administrators, successors, and assigns, and each and every one of us and them, jointly and severally, in the same manner as if said modification had been included in the contract to insure compliance with which our bond was given.

Dated at ....., ..., this .... day of ....., 19...
(Same date as execution of application.)

.....
(Surety.)

.....
(Surety.)

STATE OF .....
..... County } ss:

On this .... day of ....., 19.., before me, ...,
(Name of notary.)
a notary public in and for ....., ..., residing therein, duly sworn and acting under a commission expiring ....., 19.., personally appeared
....., *known to me to be*
(Name of sureties.)
the ..... *of the* ....., *the corporation*
(Title.) (Name of surety company.)
that executed the above instrument, and known to me to be the person who executed the above instrument *in behalf of said corporation*, and acknowledged to me that he *said corporation* executed the above instrument voluntarily for the uses and purposes therein specified

.....
(Notary public.)

(Notarial seal.)

Approved at....., ..., ..., 19..
(City.) (State.) (Date.)

.....
(Signature of approving officer.)

.....
(Title.)

N. B.—The italicized words in the form of consent of sureties will be stricken out when executed by individuals and not by corporations.

Extension of time.

Extension of time will not be granted for speculative purposes. When an extension of time is favorably considered, the officer in charge should decide whether the present price is sufficient, whether the contract can be improved with particular reference to the present condition of the sale area, and if the method of marking, scaling, utilization, or [illegible] administration can

be strengthened and improved by any modification in the agreement. Extensions of time without change in the other conditions of the contract will be granted only in cases where the interests of the United States will not be prejudiced thereby and then only when causes over which the purchaser has no control have unavoidably delayed his operations.

Exceeding five years. All extensions of time which bring the total cutting period allowed by the contract in excess of five years must be specifically approved by the Secretary.

When refused—disposal of timber. When an extension of time is refused, any timber which may have been paid for and cut but not scaled at the date when the contract expires, may, in the absence of good reasons for retention, be scaled and its removal by the purchaser permitted.

Form. Whenever an extension of time is desired in an advertised sale an application should be made in accordance with the form for modification of contract, inserting after the words, "to read as follows," Clause 12 of the contract, Form 202, with the changes proposed. If the modification is proposed at an increase in price, the following should be added as part of the sentence following the modified clauses, "and further, to pay for all timber not cut during the time specified in said agreement at the rate of $..... per ..... in advance payments as set forth in said agreement."
(M feet B. M. etc.)

Consent of sureties will be obtained in the form given on page 31.

Postponement of brush piling. When postponement of brush piling is advisable and is not provided for in the contract, the following change may be made in the form for modification of contract, after the name of the National Forest, line 3:

Form for application.

respectfully state that the snow is now too deep on the cutting area to permit of proper brush disposal, and ..... therefore request that in accordance with paragraph
(I or we.)

.....of said contract we be permitted to proceed with the cutting and removal of the timber and to postpone brush disposal until such time as in the opinion of the Forest supervisor proper disposal of the brush can be made in accordance with the terms of the said contract.

.....agree, if this application is approved, that.....will, as soon as
(I or we.) (I or we.)

the condition of the snow makes it possible and not later than....., at the request of the Forest officer in charge of the work, put on a sufficient force of men to dispose of all brush caused by the operations subsequent to the granting of this application, and also all other brush which is not properly disposed of at the date of this application, in a manner satisfactory to the Forest officer in charge of this work, and to use every precaution against fire being started in such brush and débris as is not properly disposed of on account of the granting of this application and to pay for any damage that may result through the approval of this application.

Bond. If a bond is required at the time of postponement, the amount will be at least twice the estimated cost of brush piling, and will be prepared on Form 377.

Consent of sureties. The consent of sureties will refer to the application as follows:

Whereas, the said ..... have, by an instrument in
(Name of purchasers.)
writing of even date, applied for a modification of the aforesaid contract so that they

may proceed with the cutting and removal of the timber without piling the brush until such time, not later than ....., as said Forest officers shall decide that the brush can be properly piled, and have agreed if said application is allowed that they will, as soon as the snow is gone, at the request of the Forest officer in charge, put on a sufficient force of men to dispose of all brush caused by the operations subsequent to the granting of said application, and also other brush of which disposal has not been made at the date of said application, in a manner satisfactory to the Forest officer in charge, and to use every precaution against fire being started in the brush and débris not piled on account of the granting of said application, and to pay for any damage that may be caused by the granting of said modification of the contract.

Approval of modifications.

In unadvertised sales modifications will be granted only in writing, by letter, or by approval of an application in accordance with the foregoing forms if their use is deemed advisable. In advertised sales modifications will be granted only by approval of a formal application.

Modifications will be approved by the officer having authority to make the class of sale the contract for which is to be modified, after the district assistant to the solicitor has advised that such modification is lawful. The application and consent of sureties should be approved on the same day.

Record.

In unadvertised sales modifications will be prepared with two carbons, the original forwarded to the purchaser and the carbons filed with the supervisor and ranger. In advertised sales modifications will be prepared in quadruplicate and executed and approved in duplicate. A fifth copy will be prepared for the Forester's files in sales where the modification is approved by him. The original will be retained in the district forester's files in class D sales and in the supervisor's files in class C sales. The duplicate is for the purchaser, the third copy for the supervisor or district forester, as the case may be, and the fourth for the officer in charge of the sale. Dates and signatures should be filled in on all retained copies.

Consent of sureties will be prepared in duplicate but only the original executed. The original will be filed with the original of the application. The duplicate will be filed in the supervisor's office in class D sales and the district forester's office in class C sales.

CANCELLATION OF CONTRACTS.

If the cancellation is by mutual agreement, an application executed by the purchaser and approved by the Forest officer approving the sale will be required except in unadvertised sales in which notification signed by the approving officer is sufficient.

Form for advertised sales.

The following form with necessary modifications will be used in advertised sales:

(Case designation.)

.....
(Title of approving officer.)

.....
(Address.)

SIR:

....., ..., of .....,
(I or we.) (City.)

....., purchaser.. of the timber in the above designated case by a contract
(State.)

signed in duplicate by ..... on the .... day of ....., 19.., and approved
(Me or us.)

by ....., ..., on
(Name.) (Title.)

the .... day of ....., 19.., respectfully state that ..... have deposited in
(I or we.)

connection therewith the sum of $.....; that ..... have cut thereunder
(I or we.)

.....timber (of the value of $.....; that all the terms of said contract have been fully complied with) and that on account of the following circumstances .....
(I or we.)

do not care to complete the sale: .....

.....

..... therefore request that the said contract be canceled, that ..... be
(I or we.) (I or we.)

relieved from all further liability thereunder, and that the sum of ..... dollars ($.....) remaining to ..... credit be (refunded) (transferred to the credit
(My or our.)

of ..... on ..... timber sale of.....19..).

Signed in duplicate this....day of..... 19...

.....

.....

Approved at ....., ..., ..., 19...
(City.) (State.) (Date.)

.....,
(Signature of approving officer.)

.....
(Title.)

The last part of the final sentence is necessary only when a balance is to be refunded or transferred.

Enforced cancellation.

If the cancellation is enforced, the action, which will be justified only on account of serious violation of the terms of the contract, will, except in Forester's sales, be taken only by the superior of the officer approving the contract and after the district assistant to the solicitor advises that such action is legal and after the purchaser has in writing been given a reasonable time to show cause why the contract should not be canceled. Formal notification of enforced cancellation will be sent in all cases, and, if by the district forester, will be sent through the supervisor with a duplicate copy for the supervisor's files.

Field examination before cancellation.

Contracts will be canceled only after the condition and location of the cuttings, the amount of timber left uncut and the possibility of a ready sale at prices not less than those of the existing contract, have been reported on with specific recommendations. If enforced cancellation is considered, the report will in addition cover thoroughly the violation of the contract.

SPECIAL USES CONNECTED WITH SALES.

When special uses for sawmills, logging railroads, flumes, camps, etc., are to be used only in connection with a sale, provision for them may be included in the timber sale contract.

PERIOD FOR REMOVAL.

Time limits.

The period allowed for cutting and removal will be governed by the amount of timber involved in the sale, the capacity of the mill, the practicable logging season, and the rate at which the timber cut can be disposed of in the available market. The period in class C sales should ordinarily not exceed three years. The approval of the Secretary must be secured in all cases where the period allowed by the contract exceeds five years.

In cases in which the contract requires the removal of a definite amount of timber each year, it may be advisable, because of preliminary work to be done by the purchaser, to make the amount for the first year much smaller than for the following years.

"Removed" defined.

The word "removed," as relating to timber sale contracts and to the closing of timber cases, will be construed to mean that the timber is in such location that its further removal will neither interfere with the administration of the Forest nor require the attention of a Forest officer, nor interfere with any forest growth, nor be a fire menace, whether on or off the cutting area. When possible, the point of removal will be to roads or other places where the material is immediately available for distribution to consumers. With saw timber, removal to the mill can usually be required.

EXAMINATION OF TIMBER APPLIED FOR AND PREPARATION OF THE APPLICATION.

The maximum annual cut.

Upon receipt of an informal application for timber it will first be determined if the sale can be made without exceeding the annual cut approved by the Secretary.

On Forests with working plans.

If this is possible, the working plan, if one has been prepared for the area, will be checked to determine if a sale can be made in accordance with its provisions. If decided in the affirmative, an examination of the timber will then be made to determine definitely the boundaries of the sale area, the provisions, including stumpage rates, which should be incorporated in the contract, and the best method for cutting unless it is already outlined. If necessary or advisable the estimates will be checked, but the fullest possible use should be made of reconnaissance maps and estimates.

If the sale can and should be made contrary to the provisions of the working plan, the approval by the district forester of the plan of the modification will be secured in all important sales. Approved changes will at once be incorporated in the working plan.

On Forests with preliminary plans.

Ordinarily it should be possible to determine from the preliminary plan if a sale can be made from the locality applied for, or if an attempt should be made to locate a sale area elsewhere. Changes suggested by applicants will be carefully considered, but can not be made when contrary to the best management of the Forest.

If the preliminary plan does not show clearly the advisability of making the sale, an additional field examination must be made.

In any case unless full information is already at hand or from conclusive information available it is certain that the timber should not be sold, a detailed examination of the timber applied for will be made.

The future stand. The problem of securing a future stand after cutting is the most important to be considered. Before any sale is approved, clear-cut and definite directions will be prepared by the proper officer instructing the men in charge of the sale on marking the timber so that reproduction of the more desirable species will be secured. Each district should study the local species carefully so that the best silvicultural treatment of each type will be thoroughly understood. The results of these studies should be in the hands of all officers on National Forests.

Before making any timber sale the possible damage to reproduction in cutting will be carefully considered.

Protection from stock. If the reproduction is being or will be damaged by stock it may be advisable to recommend restriction of grazing for a time after cutting has been completed. In every case the supervisor will consider the possibility of arranging grazing allotments or periods so as to secure necessary protection for young growth without materially reducing the total number of stock grazed upon the Forest. If this is impossible, he should recommend necessary reductions. Grazing off the grass crop is a protection against fire which may offset damage from tramping. Where the exclusion of stock from any locality will work a hardship on permittees it should not be recommended without carefully weighing all of the interests involved.

Method of cutting. Before cutting commences the best method should be determined. Whether a clear cutting, selection, or group system or merely a light thinning is best can only be determined after careful study on the ground.

Approximate diameter limits. Except in clear cutting, an approximate diameter limit or a statement of the percentage of the timber to be left is usually advisable to give the purchaser a rough idea of the amount of timber which will be removed. If diameter limits are named, it should be understood that the stated limits may be varied as shown by the contract, in accordance with the silvical requirements of the stand, and that as a rule at least one-third of the volume of the original stand will be retained. Different limits will usually be adopted for different species in the same sale. The limit on desirable species should be high, in order to reserve from cutting a large percentage of young and healthy middle-aged trees for seed purposes and to provide for a second cutting within a reasonable time. For undesirable species, unless their percentage in the stand can be reduced in some other way, the limit will usually be low enough to remove all merchantable trees when not needed for protection of the soil or, in the absence of more desirable species, for seeding purposes.

All species to be cut. Since it is usually undesirable to allow a purchaser to remove only the best species, contracts will ordinarily provide for the cutting of all merchantable species.

Logging methods. The method of logging and the seasons during which it will be carried on will be ascertained and their effect upon the Forest considered. If there is danger of serious damage to the reproduction or of erosion, the examining officer will recommend measures to prevent it.

Dead timber. Merchantable dead timber will be included in all sales. All dead timber will be disposed of as soon as possible, except in rare cases, where it constitutes the only available supply.

No sale will be so large as to endanger the future local supply. If data are not available the future needs of the locality should be investigated. The limited supply on some Forests will prevent sales except for local use, but every effort will be made to satisfy legitimate demands.

Provision for local needs.

Sales for large amounts will be made when necessary to encourage new purchasers, to establish new industries, to maintain established local industries, or to aid in local development.

Size of sales.

The size of a sale will in the main be determined by the cost of the improvements required to market the timber, with a view to restricting the necessary investment for such purposes per unit of material to be handled to a reasonable amount.

A sale may be apportioned at the highest price bid among different bidders, if desirable and practicable, to prevent monopoly.

Monopoly.

Classes A and B sales will usually be made by amount. Class C sales may include all the merchantable timber on a given area, which must be designated by unmistakable natural boundaries or by blazed lines. In either case, all small, isolated, and reasonably accessible bodies of timber, which if left would not be salable, will be included. Except where the cutting area is bounded by patented lands or valid claims, it is usually very undesirable to define the boundaries by legal subdivisions.

The cutting area.

If the application includes all the timber on a watershed or slope the cutting area can be bounded by topographic features, such as ridges and streams. If only a part of the timber on a slope or watershed is wanted, the cutting area should not be limited to the most desirable. It is often better to cut one slope of a valley instead of the most accessible timber on both. When successive sales are made from the same watershed or locality the cutting areas will either be contiguous or so arranged that the timber left may be sold without difficulty.

In determining the cutting area for any large sale, small areas which will probably be needed to supply local demands must be excluded and the lines plainly designated.

Timber included in a sale upon which mineral locations have been made after the execution of the timber-sale contract will be cut as Government timber. If the location was made after the application was received and before the contract was executed, and was evidently made to interfere with the timber sale, cutting must be suspended, but a report on the claim will be forwarded immediately to the district forester, who will at once report the matter to the chief of field division, with a request for speedy action to determine the validity of the claim.

Timber on mining locations.

It was decided by the United States circuit court for the district of South Dakota, in Lewis *v.* Garlock (168 Fed., 153), that the United States may sell insect-infested timber from a mining claim that has not passed to patent when the timber is a menace to that on adjoining National Forest land. Accordingly Forest officers may dispose of insect-infested timber from unperfected mining claims when such timber is an actual menace to the Forest.

Insect-infested timber on mining claims.

The following policy should govern payments for timber cut from claims:

Payment for timber cut from claims.

Whether the claim is apparently held in good faith or not, if timber is cut and removed payment will be made to the Government in all cases except where the timber is removed in good faith for the purpose of clearing the land for cultivation or for development, or where at the time of cutting the timber is actually needed by the claimant for use in making improvements on the land embraced in his entry or location. If any such claimant should need timber for the purposes above specified and should be unable to obtain it on his claim, he will be allowed to take timber under free use permit from other lands of the United States for these purposes up to the amount cut from the claim for which the United States has received payment.

Unmarked mining locations.

Where the boundaries of a mining location are not specifically marked and there are practically no evidences of its existence, a sale of the timber on the area may be consummated notwithstanding subsequent protest of any party alleging the location of a mineral claim covering such area prior to the sale.

Unperfected claims.

The department will not attempt, without the consent of the claimant, to sell or cut timber from unperfected, subsisting claims within a National Forest except in emergencies arising from insect infestations.

School and railroad sections.

Particular care will be taken not to sell or cut the timber from lands which after survey will be school or railroad lands, and from unclassified railroad sections within the primary limits of the grant.

Stumpage prices.

No timber will be sold at prices lower than the minimum or higher than the maximum fixed annually by the Secretary for the species, grade, and location, without first obtaining the Secretary's approval. Appraisals higher than the maximum rates or lower than the minimum rates will be submitted to the Secretary for approval in accordance with the following instructions:

In all sales the stumpage prices will be based not upon local prices but upon the actual value of the timber. Timber on a gentle slope and within a mile of a drivable stream may be worth more than twice as much as equally good but less accessible timber. The Forest Service will not compete in price with timber from claims or land grants. The actual value will be determined by deducting from the value of the product the cost of logging and manufacture and a percentage of profit ranging from 10 to 30 per cent on the investment required in each 1,000 feet b. m. or other unit of quantity which is handled. The exact percentage will depend upon the size of the operation, the stability of market conditions, and the risk of loss involved.

The data necessary to determine the actual value of the timber will be carefully obtained in each case by the Forest officer making the examination. The value of the manufactured product will be reported, together with the prices of competing timber and the estimated profit to the purchaser at the stumpage price recommended. The cost of brush disposal, protection of young growth, close utilization, and logging only marked timber must be considered before deciding on the value of stumpage.

Stumpage rates will not be reduced for any purchaser on the ground that his methods of manufacture are imperfect and utilization incomplete. In recommending prices for sales to mining, power, or other enterprises for their own use, the cost of securing material from the nearest source outside the National Forest must be fully reported. Stumpage in regions where timber from outside sources can not enter into competition will be appraised on a reasonable basis, in accordance with rates received on other portions of the Forest, not at monopoly prices.

Merchantable dead timber has approximately the same market value as green timber and the stumpage rates will ordinarily be the same. In many cases it will be possible to simplify the scaling and administration of the sale by recommending an average price for all species, and for both living and dead timber.

Timber of saw-log quality which will become accessible for that purpose within a reasonable time will not ordinarily be sold as cordwood or for other uses at less than saw-timber rates.

No application will be approved by any officer unless the report of the examiner shows definitely that the full market value of the timber will be received.

Period allowed for cutting.

Recommendations for the period to be allowed for the cutting and removal of the timber will be made. The facilities of the purchaser for completing logging within the time specified must be considered.

Utilization.

A careful study of market conditions should be made and necessary provisions for complete utilization included in the application. The individual tree must be utilized as closely as good business and fairness to the Government and the purchaser justify. The Service will insist on as complete use as possible even if the same financial returns might be obtained for less material. Purchasers will be assisted in every possible way to find markets for material not commonly used. The basis for distinguishing between merchantable and unmerchantable timber as well as for distinguishing between material to be put to different uses and sold at different stumpage rates will be determined.

If it is found that purchasers can use logs of odd lengths a suitable provision will be included in the application. Tables and scale sticks for logs of odd lengths will be furnished upon request.

Camps and improvements.

If it will be necessary to construct logging camps or other buildings, telephone lines, flumes, or roads, their proposed location and disposition when logging is completed will be determined. The value of these improvements to the Forest Service will be considered, for example, the use of buildings for administrative purposes. If the improvements are not bought or retained by the Forest Service in pursuance of the contract, the purchaser will be allowed a definite period after completion of the logging for their removal. If they are not removed within this period they become the property of the United States.

Precautions against fire.

A careful study will be made of the precautions necessary to prevent fire. The clauses which will be included in the application in sales where special apparatus such as donkey engines are to be used will be determined. It will also be ascertained how many employees will be available for fire fighting.

Field data submitted as map, estimate, and report.

The data obtained in the examination will be forwarded to the supervisor in the form of a map, estimate, and report. In all advertised sales recommendations for marking must accompany the report where departures from the general marking rules are necessary.

Map.

Every report upon timber recommended for advertisement must contain at least one map. This must show not only the proposed sale area, but also its location with reference to the surrounding Forest, topographic features, such as ridges, streams, and roads, proposed roads, camps, and mill sites, lands under patent or claim, and surveyed lines, if any.

The map must include enough of the surrounding Forest to show that the timber applied for may be removed without rendering the surrounding timber inaccessible and unsalable. Burns, barren or open land, forest types, and the limits of merchantable timber on slopes will be shown so far as they affect the desirability of allowing the sale. Within the area applied for the forest type will be shown and the topography will be indicated in sufficient detail to demonstrate the ease or difficulty of logging the timber, and to show the natural boundaries of compartments or logging areas. In small sales one map will show all these data, so that maps for blocks are unnecessary the blocks being indicated by dotted lines; this map will be drawn to a scale of not less than 4 inches to the mile, and the forest atlas colors and symbols, as far as practicable, will be used.

Large tracts require location maps on a small scale, showing only the outline of the proposed cutting, the section lines or other location points, private lands, if any, and dotted lines to represent the accompanying block maps on a large scale. The latter may then be numerous and large enough to show necessary detail.

The proposed cutting area, as recommended by the examining officer and covered by his estimate and description, whether or not he agrees with the applicant, must always be clearly defined on the map; so must every part for which there is a separate estimate, description, or important recommendation.

When reconnaissance maps are available, the preparation of other maps in the field will usually be unnecessary.

Estimate.

The timber upon the definite cutting area recommended and shown on the map will always be estimated. If uncertain conditions of sale or differences between the Forest officer and the applicant make it likely that the area recommended may be extended or reduced, estimates for both the larger and the smaller area are required; otherwise the cutting area will be fixed and estimated without reference to other lands. Where applications for adjoining timber are expected, and where the whole body could be most economically examined at one time, the work of estimating may include a large area so that subsequent sales can be made without further estimating. In such cases the estimate of the cutting area covered by the present application must be kept separate and an estimate and report submitted for each additional area which comprises a natural logging operation. The same methods will be followed in estimating large bodies of timber which are to be sold. Whenever the Forest on different areas requires different treatment or different stumpage prices, the details of the estimates and report should clearly show such differences.

By separate types. When there is more than one forest type within the area examined, separate estimates for each type should be made.

Timber to be left. The Forest officer will submit an estimate of the merchantable timber which will be left after logging under the plan of cutting proposed. This estimate will include seed trees, young timber which it is inadvisable to cut, and timber of sizes or species not desired by the applicant and which can properly be left.

Grades of material. It is essential that the estimate include the percentages of the different grades of logs or of the different grades of lumber which will be cut in order that the market value of the product and stumpage value of the timber may be determined.

Intensity. The work of estimating will be done as carefully as conditions will allow. Only in the largest sales may less than 5 per cent of the total area be actually estimated, and whenever possible a much larger percentage will be taken. Estimates will be conservative, but overcuts should not ordinarily exceed 10 per cent of the estimate.

Forest description. The Forest description, which will follow the outline on Form 578a, will be in sufficient detail to show clearly all features of the proposed sale. Data on logging and milling costs must be complete in order that proper stumpage prices may be determined.

Nomenclature. When common names for trees are used the nomenclature in Bulletin 17, Check List of the Forest Trees of the United States, except as modified in Forest Trees of the Pacific Slope, will be used.

Explanation and demonstration to applicants. Where possible, Forest officers will explain to applicants on the ground, and preferably before the formal application is signed, all the requirements of the regulations and the special conditions which will be recommended in the sale under consideration. The Forest officer who prepares the application will be held responsible for the applicant's clear understanding of its conditions. The purchaser, however, should not be assured that his application will be approved or that the contract will contain certain provisions, except by the approving officer himself.

Reliability and financial standing of applicants. The reliability of an applicant and his reputation in the community will be ascertained. If he has previously made use of National Forest resources, his methods of business will be reported.

It will be possible in many cases to get information regarding the financial standing of applicants from the Credit Rating Book of the National Lumber Manufacturers' Credit Corporation, a copy of which is furnished to each district office.

Application to follow terms of contract. The application will follow, as nearly as possible, the form of the final contract in order that the purchaser may fully understand from the first the exact conditions of the sale.

Sales to actual purchasers only. Formal application, when required, must be made in every instance by the person who proposes to purchase the timber. Applications will not be received from a person acting for an undisclosed principal. Advertised sales will not be made to an officer of a corporation in his capacity as an individual when

the timber is intended for the use of the corporation and not his individual use.

Special clauses for applications and contracts.

The preceding discussion and the need of any of the following special clauses will be carefully considered in the preparation of the application. Necessary modifications will be made in the clauses given which supplement those printed on Form 202:

(1) Both marked and dead trees which are considered a fire menace by the Forest officer in charge will be felled, but only such portions of them as are merchantable under the terms of this contract will be logged and paid for; this does not include trees or stubs too short or small to be merchantable under the contract.

(2) We agree, when called upon by the Forest officer in charge, to furnish a number of men, sufficient in the judgment of the Forest supervisor, up to the number of our entire logging crew, to burn the brush and débris resulting from the cutting, under the supervision of the Forest officer.

(3) A fire line having a width of not less than ..... feet shall be cleared by the purchaser of all inflammable material, except stumps, whenever required by the Forest officer, along the boundaries of the cutting area and around groups of seed trees; such fire lines shall be constructed in a manner that will be satisfactory to the Forest officer.

(4) All engines and locomotives not burning oil for fuel used in logging on the National Forest shall be equipped with spark arresters that are satisfactory to the Forest officer in charge.

(5) The purchaser will burn the slash at such times and under such conditions as the Forest officer in charge may prescribe. [To be inserted in sales where it is safe and practicable for the purchaser to burn slashings, particularly where the season permits burning slash as it is cut.]

(6) All donkey or other steam-power engines not burning oil for fuel shall be equipped with a spark arrester satisfactory to the Forest officer, a steam pump, 200 feet of serviceable 1-inch hose, 6 buckets, and a constant supply of the equivalent of 6 barrels of water; all such equipment to be suitable and available for fire-fighting purposes.

(7) The maximum scaling length of all logs will be 16 feet; greater lengths will be scaled as two or more logs. Upon all logs 3 inches additional length will be allowed for trimming; logs overrunning the specified length will be scaled as 2 feet longer. [Insert in all sales including saw timber, except where other specific terms are agreed upon. A greater overrun may be allowed when necessary in sales of large timber.]

(8) Scaling will be done as often as practicable in the judgment of the Forest officer while cutting is in progress, and copies or abstracts of the scale reports will be furnished to the purchaser after they have been approved by the supervisor.

(9) All cordwood material will be piled in compact even stacks for measurement, as directed by the Forest officer.

(10) No timber fit for saw, mining, or tie timber or posts, in the judgment of the Forest officer, will be cut into cordwood.

(11) All hewn ties whose widest diameter inside the bark at the small end exceeds ..... inches and all with visible defect will be scaled as saw logs. The scaling diameter will be the widest measurement at the small end of the tie. Small hewn ties which are sound will be counted as .... to the M feet b. m.

(12) All marked or dead trees which contain one or more merchantable logs shall be cut. All logs that will saw out .... per cent of merchantable lumber shall be considered merchantable under the terms of this contract. (The per cent depending upon character of material and local market conditions. See discussion under "Merchantable material" (p. 52).)

(13) Tops will be used for mining timbers, cross-ties, posts and cordwood whenever possible.

(14) If necessary, in the judgment of the Forest officer, exceptions in the height to which stumps are to be cut may be made in the case of swell butted, fire scarred, or otherwise defective trees; the stumps, however, will be cut low enough to include their whole merchantable contents.

(15) Logs shall be decked or piled for scaling at places agreed upon with the Forest officer, with ends even on one side of the skidway or pile, and the length shall be marked on the small or scaling end of each log by the purchaser. Logs of different species or value shall, if required by the Forest officer, be decked or piled in separate piles.

(16) Green timber which will cut a log not less than .... inches in diameter at the top and not less than .... feet long, and for diameters over .... inches containing not less than .... per cent of merchantable lumber of any grade, and for smaller diameters not less than .... per cent of merchantable lumber of any grade will be considered merchantable. Dead timber which will cut a log not less than .... inches in diameter at the top and not less than .... per cent of merchantable lumber of any grade will be considered merchantable. [The diameters and per cents depending upon character of material and local market conditions.]

(17) If material suitable for saw timber in the judgment of the Forest officer is cut into cordwood, it shall be scaled and paid for at the same rate as if used for saw timber. [To be inserted in sales which include both cordwood and saw timber.]

(18) Unmerchantable timber may be used free of charge for construction purposes in connection with the sale.

(19) If donkey engines are used, the rigging shall be slung as far as practicable upon stumps, or marked trees, and when possible the grab hook shall be used in all cases rather than the wire choker.

(20) Camps, chutes, and other improvements will be removed from the sale area within six months from the termination of the contract, and if not so removed will become the property of the United States.

(21) Camps, flumes, roads, dams, bridges, chutes, and other improvements required in logging will be located as agreed with the Forest officer, and in accordance with such conditions as he may prescribe.

(22) This contract is intended to provide for logging in the woods by means of ..... Any other method of logging may be
(Indicate whether by horses, donkey engines, etc.)
employed only with the consent of the Forest officer approving this contract and under such conditions and restrictions as may be agreed upon with him. [To be inserted especially where there is a probability of substituting steam logging for other methods.]

(23) Cutting will begin at a point designated by the Forest officer, and will be confined to the least possible area which will yield the amount specified in this agreement. [To be inserted in all sales for a definite amount instead of for all merchantable timber on a given area.]

(24) All camp buildings and structures on the National Forest shall be located in a manner satisfactory to the Forest officers at a sufficient distance from any stream to prevent pollution of any city water supply.

(25) Not to exceed .... per cent of the merchantable timber [separate percentages to be designated for each species if advisable] will be reserved in marking. [Desirable in the larger sales to indicate definitely to the purchaser the proportion of the stand which he will be permitted to log.]

Clauses for insect-infested timber.

Special clauses, based on the recommendations of the Bureau of Entomology, will be inserted in contracts for the sale of insect-infested timber. These clauses must be specific in requiring that trees be cut, peeled, or sawed and brush disposed of, as the nature of the infestation requires, at the time required by Forest officers and by specified dates of each year.

ADMINISTRATION OF SALES—GENERAL.

The chief objects of timber-sale administration are to obtain the best forest conditions possible and complete utilization, with a minimum cost to the Service and prompt attention to the purchaser's needs.

Actual participation where possible and at least frequent personal supervision by supervisors, deputy supervisors, and Forest assistants of all woods work is essential, as is also close supervision by the officer in charge in order that the purchaser may know from the first exactly what will be required of him and that his expenses may not be increased by delayed changes in method.

Small sales.

Small sales are as important from a silvicultural standpoint as larger ones, consequently the methods used in each class which affect forest conditions must be given equal consideration. Small sales are more expensive proportionately

to handle than larger ones, and constant endeavor looking toward reducing costs is necessary. Scaling or measurement and woods work will not be conducted oftener than is essential to prevent unnecessary hardship to the purchaser and to insure compliance with the contract. Purchasers may justly be required to have cut for measurement or scaling amounts of timber which will make the visit of the Forest officer worth while, and may be expected to so arrange their business that more frequent visits will be unnecessary. The proper arrangement of dates for marking and scaling will result in great economy.

Large sales.

Forest officers should never lose an opportunity to reduce the cost or increase the efficiency of administering large sales if it will not defeat the objects desired. The more simple and definite the methods adopted, the less chance there is for poor work by Forest officers or misunderstandings by purchasers. The location of each year's cut must be carefully determined and, so far as possible, must cover average conditions for the whole sale. Since the proper administration of large sales depends largely upon the men placed in charge, supervisors will use the greatest care in their selection. Important work of this character will not be left to inexperienced men.

Compliance with contract.

Forest officers in charge of sales will see that the conditions of the contract are complied with, and should such conditions seem unjust or unreasonable, will take the proper steps to secure such necessary modifications as are authorized under regulation S–7. No Forest officer has been or will be authorized to allow the violation of a contract. A Forest officer can not properly handle a sale unless he has a copy of the contract and is familiar with its terms.

Subordinates.

Questions concerning logging methods, compliance with the contract, etc., will be taken up with the purchaser or his superintendent rather than with subordinate employees.

When cutting may begin.

Cutting may not begin in any sale until the contract has been executed or an advance cutting agreement has been executed and approved, the timber designated, the necessary deposits made and the Forest officer in charge furnished with a copy of the contract. In unadvertised sales it must also be definitely known that the contract is or will be approved. In advertised sales, if other requirements are satisfied, cutting may follow the execution and need not await formal approval of the contract.

MARKING.

Methods.

When the sale of any green timber is assured, the supervisor will see that all trees which are to be cut are marked or otherwise unmistakably designated for cutting. Where only dead timber is purchased and no living timber will be cut, or where patches are to be cut clean, Forest officers may, instead of marking or designating every tree for cutting, blaze and mark the boundary of the cutting area or patch and instruct the purchaser in the manner of cutting. Merchantable dead trees, about which there may be a question, will always be marked, except where the contract contains a clause providing for the cutting of all dead timber.

When the plan of marking is followed, standing timber must be marked "U. S." near the ground, so that every stump will show the mark. Where snow may conceal the marking from the cutters, each tree must also be marked at a point several feet from the ground.

On thick-barked trees where chopping through to the wood means considerable extra work and expense, and where cutting is to take place in the near future, the bark may be blazed and stamped "U. S." Usually it is inadvisable to mark timber a long time in advance of cutting, but where this is necessary for any reason, officers should cut through to and stamp the wood plainly. The marking must be such that the stamp will be distinct at the time of cutting, and as long after cutting as is necessary for inspection.

Timber should be marked when it can be done most economically; the work will not, however, be done too far in advance and the cut-over area will be watched for mistakes. In no case should timber be marked outside the area designated in the contract. In a sale for a definite amount, only timber enough to yield that amount will be marked. The marking will be done thoroughly, and no large groups of mature trees will be left on the area unless so isolated that the purchaser can not reasonably be required to log them.

Demonstration to purchaser.

The system of marking and the proportion of the timber to be cut should be carefully explained to purchasers by marking sample areas before a sale is consummated. While the desires of purchasers must be very carefully considered, the silvicultural needs of the Forest must take precedence over other considerations, even at a sacrifice in present stumpage rates.

Since the marking of green timber is the most important part of any sale, it is much better to demonstrate on the ground to the Forest officers who will do the work how the marking should be done than to send out written instructions and criticize the work after it is done.

District marking board.

Whenever possible in large sales, a marking board, consisting of the district forester, the chief of silviculture, and the Forest supervisor, will mark representative areas and establish the marking policy to be followed in the sale. The action of the board will be binding upon Forest officers doing the marking, and no change will be made in the system without referring the matter to the district forester.

Marking by supervisors.

Personal marking by supervisors and deputies will take precedence over ordinary routine, and supervisors or deputies will assist in the first marking in important sales. Supervisors, either personally or through their deputies, are expected to check the work of marking frequently enough to make sure that it is being properly done.

Experienced men for marking.

Every advantage will be taken of the services of men with technical training, but men without timber-sale experience, even if technically trained, will not be placed in charge of important marking projects.

General instructions.

The following instructions for marking are general, and can not all be applied in any specific case. Modified to meet local conditions, they will serve as a basis for marking in all sales and in administrative and free use. The district forester may wherever advisable supplement these instructions with detailed instructions for the types in the district.

It may be advisable to keep a record of the volume of the trees marked and of the trees left to secure an idea of the percentage of timber reserved.

General policy.

Marking in all sales must be such as will insure the best forest growth after cutting consistent with practicable logging operations. All other terms of the sale will be subordinated to this end. As far as type conditions permit, this marking should leave on the ground sufficient timber for a second cut within a period of 50 years or less. Even if clear cutting is necessary, usually not less than one-fourth of the original stand should be retained in groups of seed trees to insure complete restocking.

Mature and defective trees.

All mature and overmature trees will be marked, except when required for seed or protection. Similarly, all trees which show such defects as punk knots, spike tops, bad crooks, low forks, fire scars, cat faces, or frost cracks, will be marked. The officer doing the marking will not be unreasonable in requiring purchasers to take defective trees, but as a general rule those which will yield one merchantable log will be marked.

Diameter limits.

An approximate diameter limit, if one is given in the contract, will be flexible. Thrifty, rapidly growing trees of desirable species will not be marked, even if larger than the stated diameter. Defective trees of any size which can be utilized will be marked, unless needed for seed or protection.

Conservative marking.

The need of an early second cut, as well as the necessity of rapidly cutting over all areas of mature and deteriorating timber so as to increase the rate of growth of the remaining stand, will be carefully weighed before deciding upon the method of marking to be employed. Where the danger of windfall is great only a light cutting may be advisable, or groups of seed trees may be left where individual trees would be wind thrown. Particularly conservative marking may be advisable to protect the watershed, to prevent erosion, to retain the scenic value of the Forest along important roads, and at the lower limits of types where heavy cutting might result in the encouragement of less desirable species. On steep slopes and exposed ridges the particular need for forest cover and the paramount value of trees as seed bearers must be given consideration. Where the system of cutting plans for a second cut within 20 to 50 years, enough timber should be left to make the second cut practical from a lumberman's standpoint.

Trees left with crowns free.

Each tree will be left, when possible, with its crown free enough for vigorous growth. If usable, trees which have been badly crowded and have only small, sickly crowns will be marked unless needed for the preservation of proper soil conditions or for other silvical reasons.

Seed trees.

Seed trees must be left where there are not enough young trees to form a good stand in the future, and the trees which would otherwise be left are not sufficient in number to properly seed up the area. Seed trees should be thrifty and capable of bearing large quantities of seed at once. Occasionally it will be possible to use trees too misshapen or defective to be mer-

chantable, but as a rule, young, thrifty, full-crowned trees, which will yield good lumber in the future, will be chosen. In mixed forests seed trees should be of the more valuable species, but poorer species are better than none. In situations where logging is difficult, the possibility of logging individual trees will be considered.

Where partial reproduction is present, fewer seed trees should be left than where there are no seedlings. If there is danger that fire will run over the area, enough trees will be left to seed the ground fully, whether reproduction is present or not. Large openings will not be made where the future forest will suffer. A number of seed trees will always be left on the edge of openings, such as old burns, on the side from which the prevailing winds blow. Ridges should be marked very conservatively. Isolated, thrifty trees of desirable species should not be marked.

It is best to first decide which trees should be left, and then mark the trees to be removed. Where there is doubt whether a tree is needed for seed or protection, it should be retained. Defective trees of doubtful merchantable value should ordinarily be marked. Correct marking can only be determined after a careful study of local types and species.

Clean cutting. In dense stands of even-aged timber, particularly of species liable to wind throw, clear cutting may be the only practicable method. In such cases, compact groups or patches of timber, of sufficient size to be wind firm should be left at frequent intervals to insure restocking. The areas cut clean should never be so large as to endanger complete reseeding from the patches of timber which will remain. The latter should be located as far as practicable upon the higher ground and other points favorable to wide distribution of seed.

Check marking. It is usually advisable for a Forest officer thoroughly familiar with the principles which have been followed in the original marking, to check the marking before the sawyers and loggers have left any area, in order to mark any trees which were obviously overlooked, or, better still, just before operations have reached an area, in order also to cancel the marks on trees which should be left.

Witness and line trees. Witness trees, or any trees blazed to mark the line of any official Government survey, will never be marked or otherwise designated for cutting.

Timber on claims. The policy in regard to cutting timber on claims, on pages 38 and 39, will be observed in marking.

BRUSH DISPOSAL.

The best way to dispose of brush is not everywhere the same. Piling and burning will be required where the fire risk is great, otherwise the method promising the best silvicultural results.

Piling. If piling and burning is necessary, all lops and débris, including large chips made from hewing ties, will be piled at a safe distance from standing trees. The piles will not be made in groups of seedlings or young growth, against dead snags, near living trees, or on stumps, large tops or logs, but whenever possible in openings. Piles should be adapted to the size of

the opening in which they are made and sufficiently compact to kindle easily and burn cleanly. Limbs or trimmed tops too large to burn well need not be piled, but may be left on the ground to rot. The ideal pile is of medium size, conical in shape, compact, 5 to 7 feet in diameter at the base, and 4 or 5 feet high.

Postponement of piling.

When brush can not be piled on account of snow, and the contract does not provide for postponement, the necessary modification should be granted by the proper Forest officer, in accordance with the instructions on page 33.

Scattering.

Brush will be scattered whenever this method promises the best silvicultural results, unless there is serious danger of fire, or where there is dense timber or reproduction. The scattered brush should be dense enough to afford actual protection to seedlings from evaporation or trampling by stock and to the soil from erosion. Ordinarily brush will be lopped so as to lie not higher than 2 feet from the ground. Less careful work may be sufficient in openings where the object is to keep cattle or other stock away from expected reproduction.

Ground burning.

Ground burning may be advisable where clean cutting has been employed, to expose the loose, mineral soil for better seed germination.

Where ground burning is adopted, the brush and débris will be left unpiled until conditions make it safe to burn the entire slashing. To follow this plan the agreement must require the purchaser to clear a fire line around the area to be burned and around all patches of timber within it which are to be left, and to furnish adequate help to the Forest officer who supervises the burning.

Burning as cutting progresses.

Frequently the most economical way to dispose of brush, if weather conditions are suitable, is to burn it as the cutting progresses. Fires can be started at convenient points and the brush thrown on them as it is lopped. This is often feasible after light snow falls.

Burning brush piles.

Brush burning is necessary whenever there is danger of fire, but ordinarily is not advisable over an entire sale area. It is frequently possible to burn the brush so as to form broad fire lines, particularly along railroads or wagon roads, laid out so as to do the least injury to young growth. Fire lines will ordinarily follow ridges rather than canyons and will be laid out according to the topography. Where to burn brush completely means damage to reproduction, unburned piles will be left, if they are not too close together. The effect of burning on grazing and future reproduction will be carefully weighed.

Time.

The best times for brush burning are after a light fall of snow or rain, early in the spring before the snow has melted or the dry season has begun, or during or immediately after summer rains.

Brush from insect infested or fungus infected trees.

The proper method of disposing of brush from insect-infested trees must depend upon the habits of the insects by which the trees are attacked. The brush from fungus or mistletoe infected trees which constitute a menace will be burned.

Rate of disposal.

Brush disposal must always keep pace with logging, except when the depth of snow or other adequate reasons make proper disposal at the time impossible. Frequent inspection is necessary to see that the contract is being fulfilled in this respect.

Detailed instructions.

District foresters will, wherever necessary or advisable, issue more detailed instructions for the disposal of brush in types found in the district.

SCALING.

Unless timber is sold on the basis of an estimate, as is occasionally done in timber settlement, it must be scaled, counted, or measured before it is removed from the cutting area, or from the place agreed upon for the scaling, counting, or measuring.

Scale rule.

All saw timber will be scaled by the Scribner Decimal C log rule. This rule drops the units and gives the contents of a log to the nearest 10. When the total scale of a log is desired, all that is necessary is to add one cipher to the sum of the numbers read from the scale stick, excepting the contents of 6 and 8 foot logs, 6 and 7 inches in diameter. These are given as 0.5, which multiplied by 10 gives 5 feet as the actual contents.

In the absence of a scale stick, or where the position of logs in the pile makes its use difficult, the diameters and lengths may be tallied and the contents figured from a scale table later.

Requirements of purchasers.

In order to decrease cost, purchasers may be required to skid logs for scaling, unless the cost of logging will be greatly increased by such requirement. Whenever this requirement is made it should be covered by an appropriate clause in the contract.

The Forest officer should always insist on having one end of piles or skidways even, so that the ends of logs may be easily reached.

When necessary and possible, the purchaser will be required to mark top ends of logs to avoid question when they are scaled in the pile.

Numbering logs.

Each log scaled must be numbered with crayon. The number will be the same as that opposite which the scale of the log is recorded in the scale book.

Check on total number of logs.

The logs in all skidways must be counted, and the number in each pile checked with the entries in the scale book.

Stamping logs.

Each merchantable log after scaling will be stamped "U. S." on at least one end. Logs so defective as to be unmerchantable will not be stamped, but will be marked "Cull."

Log lengths in scaling.

On all National Forests except those in Alaska and west of the summit of the Cascade Mountains in Washington and Oregon, logs over 16 feet long will be scaled as two or more logs, if possible in lengths not less than 12 feet.

The following table shows how the lengths may be divided when scaling logs 18 to 60 feet long. The number of inches to be added to the diameter at the small end of each log, to cover taper, is placed under each length.

For example, a 42-foot log 16 inches in diameter at the top would be scaled as—

One 12-foot log with a diameter of 16 inches.
One 14-foot log with a diameter of 17 inches.
One 16-foot log with a diameter of 19 inches.

Total length, feet.	Log lengths.				Total length, feet.	Log lengths.			
	Butt log.	Second log.	Third log.	Top log.		Butt log.	Second log.	Third log.	Top log.
18.....feet..	10	.....	.....	8	40.....feet..	16	12	.....	12
Increase.....inches..	1	.....	.....	0	Increase.....inches..	3	1	.....	0
20.....feet..	10	.....	.....	10	42.....feet..	16	14	.....	12
Increase.....inches..	1	.....	.....	0	Increase.....inches..	3	1	.....	0
22.....feet..	12	.....	.....	10	44.....feet..	16	16	.....	12
Increase.....inches..	1	.....	.....	0	Increase.....inches..	3	1	.....	0
24.....feet..	14	.....	.....	10	46.....feet..	16	16	.....	14
Increase.....inches..	1	.....	.....	0	Increase.....inches..	4	2	.....	0
26.....feet..	14	.....	.....	12	48.....feet..	16	16	.....	16
Increase.....inches..	1	.....	.....	0	Increase.....inches..	4	2	.....	0
28.....feet..	14	.....	.....	14	50.....feet..	14	12	12	12
Increase.....inches..	2	.....	.....	0	Increase.....inches..	4	3	1	0
30.....feet..	16	.....	.....	14	52.....feet..	16	12	12	12
Increase.....inches..	2	.....	.....	0	Increase.....inches..	4	3	1	0
32.....feet..	16	.....	.....	16	54.....feet..	16	14	12	12
Increase.....inches..	2	.....	.....	0	Increase.....inches..	5	3	1	0
34.....feet..	12	12	.....	10	56.....feet..	16	16	12	12
Increase.....inches..	3	1	.....	0	Increase.....inches..	5	3	1	0
36.....feet..	12	12	.....	12	58.....feet..	16	16	14	12
Increase.....inches..	3	1	.....	0	Increase.....inches..	5	3	2	0
38.....feet..	14	12	.....	12	60.....feet..	16	16	14	14
Increase.....inches..	3	1	.....	0	Increase.....inches..	5	3	2	0

This table is intended to be used simply as a guide. The allowances for taper should be varied to conform to the actual taper.

Special rule for Alaska and west slope of Cascades.

On the National Forests in Alaska and west of the summit of the Cascade Mountains in Washington and Oregon, logs up to and including 32 feet long will be scaled as one log; lengths from 34 feet to 64 feet, inclusive, will be scaled as two logs, dividing them at the center as near as may be in even feet; for example, a 34-foot log will be scaled as an 18-foot and a 16-foot top log. The diameter of the larger log may be determined by taking the average of the top and butt diameters of the whole length or by calipering or estimated by the scaler with the help of a taper table. A 36-foot log will be scaled as two 18-foot logs. This does not apply to lengths including rapidly tapering butt cuts. The lengths and tapers for such logs can be judged by the scaler. Greater lengths than 64 feet will be scaled as three logs, making the divisions as nearly equal as possible and in even feet, and increasing the diameters according to the taper of the log.

When the logs are scaled as two or more logs, the scale allowed for the separate lengths will be added and the total sum recorded as one log.

Factors considered in scaling.

While no hard and fast rules can be given or followed, certain general principles may be laid down. They must, however, be used with judgment by the scaler and varied wherever the conditions demand. Among the points which must be considered are the size and shape of the logs, the quality as affected by various kinds of defects, the size and location of defect, and the requirements and limitations of markets.

Unnecessary loss in manufacture not considered.

It is assumed that purchasers utilize the maximum amount of material in manufacture. Since the Government can not be held responsible for loss caused by poor equipment or poor management, the scaler should not take them into consideration.

Loss may be caused by too thick slabbing; cutting material too thick or too wide at the main saw; poorly "sized" lumber; excessive "crowding" by the sawyer; poorly kept saws which "run;" waste in edging and trimming through ignorance or carelessness; sawing for a certain class of material regardless of the quantity of waste this involves.

Measuring log lengths.

It is important that measurement of lengths be made frequently enough to be sure that logs do not exceed the allowance for trimming specified in the contract.

If the scaler finds frequent violations, he will measure every log, and all logs found overrunning the trimming allowance will be scaled as if 2 feet longer, or 1 foot longer where the contract provides for odd lengths. Penalty scaling will be noted in the scale book against the number of the log so scaled to avoid possible controversy.

Frequent measuring is especially important on small sales where a Forest officer is not always present, because sawyers are more apt to be lax in measuring than when an officer is daily checking lengths.

Logs will be scaled in odd lengths if provided for in the contract.

Finding diameters.

All diameters will be measured inside the bark at the top end of the log. If logs are not round, scalers will average the greatest diameter inside the bark at the top end of the log with the diameter at right angles to this. The necessary reduction in diameter will be made for swelling at the scaling end of a log when no lumber can be produced from it.

Diameters will be rounded off to the nearest inch above or below the actual diameter.

Defects in logs.

Any portion of a log which contains a fault which prevents its manufacture into merchantable lumber is cull, and will not be scaled and charged to the purchaser.

The following defects are most common:

Uniform center or circular rot, circular shake, pin dote, ground or stump rot, cat face, dote at side of log extending to the bark, burns or defect caused by lightning extending along side of log, defect caused by lightning extending along the log in spiral form, punky or soft sap, deep checks or seams, dote appearing in knots, curve, or sweep, crooks, crotches, and blue sap.

Merchantable material.

In general, a log containing sufficient sound material to saw out salable lumber equal to one-third of its contents as given by the scale rule is termed "merchantable." This will be varied in accordance with the character of the timber and local market conditions.

The term "sound material" is here used to signify such material as will produce lumber grading not below No. 3 common, or the lowest grade commonly merchantable in the markets supplied. Supervisors will, wherever advisable, furnish scalers with specifications of No. 3 common lumber, or the lowest grade commonly merchantable, from the grading rules of the recognized lumber associations in the vicinity of their Forests. The scaler is not expected to be a grader, but the

grading rules will assist him in determining where to draw the line between merchantable and unmerchantable timber.

Uniform center or circular rot.

Under uniform center or circular rot may be included circular "heart rot" or any dote that may be roughly included within a circle on the cross section showing at either end of a log, making all of the log within the circle unmerchantable. In sawing, this area of defect is squared. The accompanying table shows the amounts of lumber which are lost in defects of this type, in diameters of 2 to 12 inches in the more common log lengths, and which should be deducted from the full scale of the log. Amounts for shorter or longer logs can be obtained as follows: For 6 or 8 foot logs, deduct one-half the amount of loss, which is the same for defect of a given diameter in a 16-inch log as in one of 30-inch diameter.

The actual loss caused by uniform circular rot as shown by the diagram, is also shown in accordance with the rules of adding 2, 3, and 4 inches, respectively, to the diameter of the defect, and deducting from the full scale of the log an amount equal to the contents of a log of the resultant diameter.

Diameter of defect.	Loss shown by diagram.				By adding 2 inches.				By adding 3 inches.				By adding 4 inches.			
	Log lengths—				Log lengths—				Log lengths—				Log lengths—			
	10	12	14	16	10	12	14	16	10	12	14	16	10	12	14	16
2 inches	3⅓	4	4⅔	5⅓	...	...	...	...	...	...	...	...	...	...	...	...
4 inches	13⅓	16	18⅔	21⅓	10	10	10	10	10	20	20	30	20	20	20	20
6 inches	25	30	35	40	20	20	20	30	30	30	30	40	30	30	40	60
8 inches	46⅔	56	65⅓	74⅔	30	30	40	60	40	40	50	70	50	60	70	80
10 inches	66⅔	80	93⅓	106⅔	50	60	70	80	60	70	80	100	70	90	100	110
12 inches	100	120	140	160	70	90	100	110	90	110	120	140	100	120	140	160

By referring to the table it will be seen that the following rules can be used to obtain the desired results:

For uniform defect 3 inches or less in diameter deduct 10 feet b. m. in logs up to 16 feet in length.

For defect 4 to 6 inches in diameter add 3 inches to actual diameter of rot, and deduct from the full scale of the log an amount equal to the contents of a log of the resultant diameter.

For defect 7 to 12 inches in diameter add 4 inches to diameter of rot and deduct an amount equal to the contents of a log of the resultant diameter from full scale of log.

Only experience gained by actually seeing defective logs "opened" at the saw will enable scalers to judge how far into a log defect extends when it appears only at one end.

In short logs showing defect less than 4 inches in diameter at only one end and not in the knots deduct one-half the amount called for by the rule for the full length of the log.

In measuring the diameter of this type of rot the scaler should measure it at the end of the log showing the greatest area of defect, since the saw cuts in straight parallel lines.

The rule given for circular rot may be used in determining the amount of loss caused by shake by finding the diameter of the portion of the log included within the outer "ring" of shake. If there is at the center of the log a core of sound timber of merchantable size, inside of the shake "rings," the core will be scaled as a log and the difference between its contents and the amount to be deducted is the net deduction from the full scale.

Circular shake.

Pin dote appears on the cross section at the end of a log in the form of little rotten spots usually scattered in a roughly circular area. Logs containing it may "open up" poorly, the doty spots frequently converging and forming a mass of poor material. It sometimes extends into knots, and generally, if the visible area affected is 4 or more inches in diameter, it should be deducted as in circular rot.

Pin dote.

Ground or stump rot is found in butt logs, usually appearing in the form of brown, dry punk. It seldom extends far into the log, and usually tapers to a point. If it joins center rot from above, the defect falls within the center or circular rot class.

Ground or stump rot.

Where stump rot occupies the center of the log to within a short distance of the bark, a sufficient deduction can be made from the length of the log. In addition, a small allowance for the defect may also be made, since it may occur in the log above the section dropped. The responsibility of the sawyers in butting unusually defective logs and in adjusting log lengths so as to eliminate defect should be determined before scaling.

The scaler must exercise judgment in such cases, considering the relative diameter of the defect as compared with the diameter of the butt and sighting along the log to see if any boards can be cut between the rot and the bark. Where this defect occurs at only one side of the butt, it usually extends only a short distance into the log, and frequently much of it will come out in the slab, especially where there is considerable "flare" or swell.

Deductions for cat face can be determined by dividing a log into sections as follows: Consider what proportion of the length of log is affected; find the contents of this section on a scale stick, then determine the proportion of the section that will be lost in sawing, and deduct this amount.

Cat face.

For example, in the butt of a 16-foot log with a top diameter of 24 inches, which scales 400 feet b. m., there is a large cat face about 5 feet long which extends to the heart of the log. The cat face tapers toward its top, where it will come out in slabbing, and affects about 4 feet of the log. The 4-foot section affected will contain one-fourth of the log scale, or 100 feet b. m. The defect includes one-half of the 4-foot section, or 50 feet b. m., which should be deducted. Here again judgment must be used. While the defect may extend to the heart at the point of cutting on the stump, it may taper rapidly toward its top and perhaps affect only one-third or less of the section.

The scaler should never lose sight of the fact that the percentage of loss caused by defects located at the side of a log is much less than when they occur near the center, since in the former case much of the defect will come out in slabbing. This is especially true of the butt of

Other defects in the side of the log.

the first log where the flare or swell is considerable at the point of cutting.

In culling for dote on one side of a log extending to the bark, burns or other defects caused by lightning extending along the side of the log, the scaler should consider how far toward the heart they extend, and by estimating the percentage affected determine upon suitable deductions.

Since they do not usually run deep and can be mostly removed in slabbing, defects caused by lightning extending spirally along a log do not affect the scale. The percentage of loss is proportionately greater in small logs than in large ones.

Punky or unsound sap. Where a shell of unsound sap occurs, only the sound heartwood will be measured.

Blue sap. Sound blue sap does not render a board unmerchantable, but the scaler should be certain that it is not insect eaten. The fault occurs most frequently in dead trees, but may sometimes be found to affect dying trees. Oftentimes logs containing it are slightly punky at the outside, and as a rule, if the scaler in measuring the diameter includes the sap on one side of the log only, discarding the other sap, the result will be satisfactory.

Deep checks or seams. Deep checks or seams are usually found in dead and dry trees and affect the scale in varying degree, depending upon the number of checks, their depth, etc. Almost always they extend through the sap and frequently into the heartwood. Where they affect the sap alone, the rule for culling for defective sap will apply; where the checks are small, it is fairly certain they affect the sapwood only; but when they are of considerable width they usually affect the heartwood, and proper deductions should be made.

Where only one deep, straight check occurs in a log the loss is very small, but where many seams are found the method given for use in the case of deep spiral checks can be followed.

Deep spiral checks. Where deep spiral checks are found, the scaler will measure the diameter of the portion of the log included within the largest circle which can be described on a cross section without being materially affected by the checks and class as defective all that part of the log outside the area defined by the circle.

Dote appearing in knots. Rot in the log is sometimes shown only by an examination of the knots, and the only method of determining the proper deduction is to see such logs "opened up."

When rot appears at the ends of a log and also in the knots, the deduction depending on the number of knots affected, their size, position, etc., should be from 10 to 50 per cent greater than when it appears at the ends alone. When dote appears in the knots, it indicates that the area of rot enlarges in the portion of the log near the knots.

Curve or sweep. The percentage of a log affected by sweep or curve varies acccording to the diameter of the log. An amount of curve that might cull a very small log would not necessarily cause the rejection of a larger log.

The scaler should, when possible, sight along curved logs, noting where the saw would square the log sufficiently to enable boards to

be cut on both sides affected by the curve, thus determining the amount of loss caused by the sweep. It should be remembered that boards sawed near the slab are always narrower and contain fewer board feet than those sawed from the balance of the log.

No deduction should be made for curve or sweep in logs over 16 feet long.

Crotches. Except in rare cases, crotches do not affect the scale of logs sufficiently to require deductions. If sawyers do their work properly they will cut back on the log sufficiently to eliminate the part affected by the crotch.

The scaler should obtain the average diameter of the log immediately below the enlargement caused by the crotch.

Scribner Decimal "C" Log Rule.

FOR LOGS UP TO AND INCLUDING 32 FEET IN LENGTH.

[Contents of logs.]

Diameter in inches.	Length (feet)—													
	6	8	10	12	14	16	18[1]	20	22	24	26	28	30	32
	Board feet.	*Board feet.*	*Board feet.*	*Board feet.*	*Board feet.*	*Board feet.*	*Board feet.*	*Board feet.*	*Board feet.*	*Board feet.*	*Board feet.*	*Board feet.*	*Board feet.*	*Board feet.*
6	0.5	0.5	1	1	1	2	2	2	3	3	3	4	4	5
7	0.5	1	1	2	2	3	3	3	4	4	4	5	5	6
8	1	1	2	2	2	3	3	3	4	4	5	6	6	7
9	1	2	3	3	3	4	4	4	5	6	6	7	8	9
10	2	3	3	3	4	6	6	7	8	9	9	10	11	12
11	2	3	4	4	5	7	8	8	9	10	11	12	13	14
12	3	4	5	6	7	8	9	10	11	12	13	14	15	16
13	4	5	6	7	8	10	11	12	13	15	16	17	18	19
14	4	6	7	9	10	11	13	14	16	17	19	20	21	23
15	5	7	9	11	12	14	16	18	20	21	23	25	27	28
16	6	8	10	12	14	16	18	20	22	24	26	28	30	32
17	7	9	12	14	16	18	21	23	25	28	30	32	35	37
18	8	11	13	16	19	21	24	27	29	32	35	37	40	43
19	9	12	15	18	21	24	27	30	33	36	39	42	45	48
20	11	14	17	21	24	28	31	35	38	42	45	49	52	56
21	12	15	19	23	27	30	34	38	42	46	49	53	57	61
22	13	17	21	25	29	33	38	42	46	50	54	58	63	67
23	14	19	23	28	33	38	42	47	52	57	61	66	71	75
24	15	21	25	30	35	40	45	50	55	61	66	71	76	81
25	17	23	29	34	40	46	52	57	63	69	75	80	86	92
26	19	25	31	37	44	50	56	62	69	75	82	88	94	100
27	21	27	34	41	48	55	62	68	75	82	89	96	103	110
28	22	29	36	44	51	58	65	73	80	87	95	102	109	116
29	23	31	38	46	53	61	68	76	84	91	99	107	114	122
30	25	33	41	49	57	66	74	82	90	99	107	115	123	131
31	27	36	44	53	62	71	80	89	98	106	115	124	133	142
32	28	37	46	55	64	74	83	92	101	110	120	129	138	147
33	29	39	49	59	69	78	88	98	108	118	127	137	147	157
34	30	40	50	60	70	80	90	100	110	120	130	140	150	160
35	33	44	55	66	77	88	98	109	120	131	142	153	164	175
36	35	46	58	69	81	92	104	115	127	138	150	161	173	185
37	39	51	64	77	90	103	116	129	142	154	167	180	193	206
38	40	54	67	80	93	107	120	133	147	160	174	187	200	214
39	42	56	70	84	98	112	126	140	154	168	182	196	210	224
40	45	60	75	90	105	120	135	150	166	181	196	211	226	241
41	48	64	79	95	111	127	143	159	175	191	207	223	238	254
42	50	67	84	101	117	134	151	168	185	201	218	235	252	269
43	52	70	87	105	122	140	157	174	192	209	227	244	262	279
44	56	74	93	111	129	148	166	185	204	222	241	259	278	296
45	57	76	95	114	133	152	171	190	209	228	247	266	286	304
46	59	79	99	119	139	159	178	198	218	238	258	278	297	317
47	62	83	104	124	145	166	186	207	228	248	269	290	310	331
48	65	86	108	130	151	173	194	216	238	260	281	302	324	346
49	67	90	112	135	157	180	202	225	247	270	292	314	337	359
50	70	94	117	140	164	187	211	234	257	281	304	328	351	374
51	73	97	122	146	170	195	219	243	268	292	315	341	365	389
52	76	101	127	152	177	202	228	253	278	304	329	354	380	405

Scribner Decimal "C" Log Rule—Continued.

Diameter in inches.	Length (feet)—													
	6	8	10	12	14	16	18[1]	20	22	24	26	28	30	32
	Board feet.	Board feet.	Board feet.	Board feet.	Board feet.	Board feet.	Board feet.	Board feet.	Board feet.	Board feet.	Board feet.	Board feet.	Board feet.	Board feet.
53	79	105	132	158	184	210	237	263	289	316	341	368	395	421
54	82	109	137	164	191	218	246	273	300	328	355	382	410	437
55	85	113	142	170	198	227	255	283	312	340	368	397	425	453
56	88	118	147	176	206	235	264	294	323	353	382	411	441	470
57	91	122	152	183	213	244	274	304	335	365	396	426	457	487
58	95	126	158	189	221	252	284	315	347	379	410	442	473	505
59	98	131	163	196	229	261	294	327	359	392	425	457	490	523
60	101	135	169	203	237	270	304	338	372	406	439	473	507	541
61	105	140	175	210	245	280	315	350	385	420	455	490	525	560
62	108	145	181	217	253	289	325	362	398	434	470	506	542	579
63	112	149	187	224	261	299	336	373	411	448	485	523	560	597
64	116	154	193	232	270	309	348	387	425	464	503	541	580	619
65	119	159	199	239	279	319	358	398	438	478	518	558	597	637
66	123	164	206	247	288	329	370	412	453	494	535	576	617	659
67	127	170	212	254	297	339	381	423	466	508	550	593	635	677
68	131	175	219	262	306	350	393	437	480	524	568	611	655	699
69	135	180	226	271	316	361	406	452	497	542	587	632	677	723
70	139	186	232	279	325	372	419	465	512	558	605	651	698	744
71	144	192	240	287	335	383	430	478	526	574	622	670	717	765
72	148	197	247	296	345	395	444	493	543	592	641	691	740	789
73	152	203	254	305	356	406	457	508	559	610	661	712	762	813
74	157	209	261	314	366	418	471	523	576	628	680	733	785	837
75	161	215	269	323	377	430	484	538	592	646	700	754	807	861
76	166	221	277	332	387	443	498	553	609	664	719	775	830	885
77	171	228	285	341	398	455	511	568	625	682	739	796	852	909
78	176	234	293	351	410	468	527	585	644	702	761	819	878	936
79	180	240	301	361	421	481	541	602	662	722	782	842	902	963
80	185	247	309	371	432	494	556	618	680	742	804	866	927	989
81	190	254	317	381	444	508	572	635	699	762	826	889	953	1,016
82	196	261	326	391	456	521	586	652	717	782	847	912	977	1,043
83	201	268	335	401	468	535	601	668	735	802	869	936	1,002	1,069
84	206	275	343	412	481	549	618	687	755	824	893	961	1,030	1,099
85	210	281	351	421	491	561	631	702	772	842	912	982	1,052	1,123
86	215	287	359	431	503	575	646	718	790	862	934	1,006	1,077	1,149
87	221	295	368	442	516	589	663	737	810	884	958	1,031	1,105	1,179
88	226	301	377	452	527	603	678	753	829	904	979	1,055	1,130	1,205
89	231	308	385	462	539	616	693	770	847	924	1,001	1,078	1,155	1,232
90	236	315	393	472	551	629	708	787	865	944	1,023	1,101	1,180	1,259
91	241	322	402	483	563	644	725	805	886	966	1,047	1,127	1,208	1,288
92	246	329	411	493	575	657	739	822	904	986	1,068	1,150	1,232	1,315
93	251	335	419	503	587	671	754	838	922	1,006	1,090	1,174	1,257	1,341
94	257	343	428	514	600	685	771	857	942	1,028	1,114	1,199	1,285	1,371
95	262	350	437	525	612	700	788	875	963	1,050	1,138	1,225	1,313	1,400
96	268	357	446	536	625	715	804	893	983	1,072	1,161	1,251	1,340	1,429
97	273	364	455	546	637	728	819	910	1,001	1,092	1,183	1,274	1,365	1,456
98	278	371	464	557	650	743	835	928	1,021	1,114	1,207	1,300	1,392	1,485
99	284	379	473	568	663	757	852	947	1,041	1,136	1,231	1,325	1,420	1,515
100	289	386	482	579	675	772	869	965	1,062	1,158	1,255	1,351	1,448	1,544
101	295	393	492	590	688	787	885	983	1,082	1,180	1,278	1,377	1,475	1,573
102	301	401	502	602	702	803	903	1,003	1,104	1,204	1,304	1,405	1,505	1,605
103	307	409	512	614	716	819	921	1,023	1,126	1,228	1,330	1,433	1,535	1,637
104	313	417	522	626	730	835	939	1,043	1,148	1,252	1,356	1,461	1,565	1,669
105	319	425	532	638	744	851	957	1,063	1,170	1,276	1,382	1,489	1,595	1,701
106	325	433	542	650	758	867	975	1,083	1,192	1,300	1,408	1,517	1,625	1,733
107	331	442	553	663	773	884	995	1,105	1,216	1,326	1,437	1,547	1,658	1,768
108	337	450	563	675	788	900	1,013	1,125	1,238	1,350	1,463	1,575	1,688	1,800
109	344	459	573	688	803	917	1,032	1,147	1,261	1,376	1,491	1,605	1,720	1,835
110	350	467	583	700	817	933	1,050	1,167	1,283	1,400	1,517	1,633	1,750	1,867
111	356	475	594	713	832	951	1,069	1,188	1,307	1,426	1,545	1,664	1,782	1,901
112	362	483	604	725	846	967	1,087	1,208	1,329	1,450	1,571	1,692	1,812	1,933
113	369	492	615	738	861	984	1,107	1,230	1,353	1,476	1,599	1,722	1,845	1,968
114	375	501	626	751	876	1,001	1,126	1,252	1,377	1,502	1,627	1,752	1,877	2,003
115	382	509	637	764	891	1,019	1,146	1,273	1,401	1,528	1,655	1,783	1,910	2,037
116	389	519	648	778	908	1,037	1,167	1,297	1,426	1,556	1,686	1,815	1,945	2,075
117	396	528	660	792	924	1,056	1,188	1,320	1,452	1,584	1,716	1,848	1,980	2,112
118	403	537	672	806	940	1,075	1,209	1,343	1,478	1,612	1,746	1,881	2,015	2,149
119	410	547	683	820	957	1,093	1,230	1,367	1,503	1,640	1,777	1,913	2,050	2,187
120	417	556	695	834	973	1,112	1,251	1,390	1,529	1,668	1,807	1,946	2,085	2,224

[1] Scale for logs 18 to 32 feet in length to be used only on National Forests in Alaska and on the West slope of the Cascade Mountains in Washington and Oregon, or as otherwise provided by specific instructions from the Forester.

Ties. Ties may be sold by the piece, actually scaled, or counted and the number multiplied by the average contents, as the contract provides. The following ratios may be used: Eight-foot ties, standard face, 33⅓ board feet each, may be used, or 30 ties to the thousand; 8-foot ties, second class, and 6-foot ties, standard face, 25 board feet each, or 40 ties to the thousand.

Shakes and shingle bolts. Shake and shingle-bolt material will be measured by the cord or by the thousand feet board measure, in accordance with local custom. As a rule, a cord of shingle bolts may be considered equal to 600 feet b. m.

Lagging. Lagging may be measured by the cord or linear foot or by the piece, or where split lagging is used by the board foot, each cubic foot counting as 12 board feet.

Poles, posts, etc. Poles, posts, piles, converter poles, telephone poles, and stulls may be scaled, sold by the linear foot, or sold by the piece, as circumstances warrant.

Stamping material other than saw timber. When scaled, each stick of timbers, ties, posts, poles, or piles must be stamped on at least one end. Cordwood must be stamped at both top and bottom of each pile and at least 12 pieces in each cord must be stamped.

Check scaling. In check scaling as many logs as practicable will be scaled after they have been scaled by the officer in charge and without knowing his scale. The check will then be compared with the original scale. The log numbers of the original scale, as well as the length of logs, will in each case be recorded in the check scaler's book and the pages cut out and filed in the supervisor's office, or, when necessary, forwarded to the district forester through the supervisor, with the check scaler's report. Check-scale figures may be in the following form:

	Sound logs.			Unsound logs.			Totals.		
	Number of logs.	Scale.	Per cent + or −.	Number of logs.	Scale.	Per cent + or −.	Number of logs.	Scale.	Per cent + or −.
Scale.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Check scale...	.....	.....	.....	.....	.....	.....	.....	.....	.....

Any feasible plan may be adopted by supervisors to permit the checking of the count or measurement of material other than saw timber.

Mill-scale studies. Logs may be followed through the mill to determine how they "open up," but regular mill-scale studies as a check on the scale are rarely advisable, since there are too many variable factors which influence the mill output.

SALE OF MISCELLANEOUS FOREST PRODUCTS.

The sale of wild seedlings and Christmas trees, where the value is less than $100, and such products as cascara bark and turpentine will ordinarily be conducted by the supervisor under directions from the Forester or district forester.

APPEALS.

From decisions of ranger.

All complaints and appeals arising from action taken by a Forest ranger or other subordinate officer on a National Forest, either relating to applications for purchases of timber or to the enforcement of the terms of an existing contract, will be referred in the first instance to the supervisor for decision. Decision will be rendered by the supervisor in writing and a copy filed with the record in the case.

From decisions of supervisor.

Appeals from the action taken by a supervisor must be filed with him within 15 days from the date of such action or decision in the case of appeals arising under the enforcement of existing contracts and within 30 days in the case of appeals arising in connection with applications to purchase timber, or for the modification of an existing contract. The supervisor will transmit the appeal, with all supporting evidence submitted, to the district forester, together with the complete record in the case and his further recommendations and statement of the facts or reasons upon which his action was based. Decision will then be rendered by the district forester and the supervisor and appellant notified.

From decisions of district forester and Forester.

Appeals from decisions of a district forester or of the Forester will follow the same procedure and be governed by the same time limits. The district forester will transmit the appeal to the Forester, with all supporting evidence submitted, the complete record in the case, and his own recommendations and statement of the facts or reasons upon which his action was based. Similar data will be transmitted by the Forester to the Secretary in case of appeals from decisions of the Forester. Decisions rendered by the Forester will be transmitted through the district forester to the supervisor and appellant.

Record.

Decisions on appeals rendered by supervisors will be prepared in triplicate. The original will be sent to the appellant and the extra copy to the Forest officer concerned.

Decisions rendered by a district forester will be prepared in triplicate. The original will be sent to the appellant and the extra copy to the supervisor.

Decisions rendered by the Forester will be prepared in quadruplicate and by the Secretary in quintuplicate. The original will be sent to the appellant and copies furnished for the files of the Forester, district forester, and supervisor.

RECORDS AND REPORTS.

Scale reports.

The Forest officer in charge will notify the supervisor when cutting begins on any advertised sale. The scale in all sales will be reported on Form 820 to the supervisor and a duplicate retained in the ranger's files. In unadvertised sales only the final report need be submitted. In advertised sales cutting reports will be submitted while work is in progress, covering periods of one, two, three, or four weeks, as may be required by the supervisor, but in each case ending with Saturday. On Forests where there are a number of sales in operation definite dates may be set upon which the cutting reports shall be submitted.

Check and record of cutting reports.

As cutting reports (Form 820) are received they will be compared with the timber sales record card for errors in entries brought forward from the last report and for the correctness of the rates. All calculations will be checked and the information regarding the progress of the sale closely scrutinized. The date of the report, quantity of each class of material cut reduced to feet board measure, according to approved converting factors, and total value of material cut since the last report and to date will be entered on the record card. The total value of the cut to date will be compared with the total deposits to guard against cutting in excess of payments.

Supervisors may in their discretion furnish approved cutting reports to purchasers on Form 820 without the answers to the questions on the back.

Scale record—Supervisor's office.

In large sales a record of the scale of each log must be kept on file in the office of the supervisor in the book in which it was originally entered. It will be open to inspection by the purchaser at all times, but only in the presence of the supervisor or an officer from the district office.

Report of timber sold and cut.

The monthly report on Form 949 will be mailed to the district forester by the supervisor not later than the 5th of the succeeding month, even if during the month no timber has been sold or cut. It will be compiled from all Forms 615, which will not be placed in the closed records until the end of the month. Timber cut in sales and in settlements in which payment is made will be included. The date of the approval of the agreement or stipulation will in each case be taken as the date of sale, even though advance cutting may have been allowed. The date of receipt of the cutting report will be taken as the date of cutting for the report; all data will be checked before the report is forwarded.

The report should include a statement of the amount of timber previously reported as sold which will not be cut owing to cancellations or modifications of contracts during the month.

District forester's monthly report.

As soon as practicable after the 1st of each month the district forester will report to the Forester the amount and value of green and dead timber sold and cut, respectively, during the preceding month, by Forests. This report should include a statement of the amount of timber previously reported as sold which will not be cut owing to cancellations or modifications of contracts during the month.

Annual report.

The annual report will be compiled from the monthly reports.

Miscellaneous products, how reported.

Sales of miscellaneous forest products, such as Christmas trees, turpentine, seedlings, etc., should be reported in the form of a footnote to the district foresters' monthly and annual report of timber cut and sold.

Converting factors.

Converting equivalents will be used in reducing various materials to feet board measure. Tables of converting factors will be prepared in each district to meet varying conditions. Before these are adopted they will be approved by the Forester.

Summary timber sale record.

A summary (Form 616) of the timber business will be kept in the district office for each Forest and the card filed in front of all other record cards for the Forest. Each supervisor will keep Form 616 for his Forest. In order

that this form may show separately the amount of live and dead timber cut, supervisors will enter in red ink on this card form all the dead timber sold and cut and its value. Entries for live timber will be made in black ink. At the end of each month the quantity and value of each class of timber sold and cut will be entered on the summary card. At the end of each fiscal year the summaries by Forests will be totaled and entered upon a summary card for the district, which will be filed as the front card in the current record file. The timber cut in free and administrative use will be included in the total cut for the year.

Cost data. The annual cost of timber sales for the fiscal year on each Forest will be considered with the amount of timber sold and cut, to determine whether the cost has been excessive. Occasionally it may be necessary to secure detailed figures on representative large or small sales, showing the relation of the cost of sales to the stumpage price received.

Form. The following form should be used for reporting and recording timber sale costs. When advisable, in the judgment of the supervisor or district forester, mimeographed sheets may be prepared with ruled columns for periodic entry of the days and amounts chargeable to the various cost items, particularly to marking, scaling, and brush burning.

(Case designation.)

Examination:
- (*a*) Salaries of men (in cents per 1,000 feet or per cord).
- (*b*) Supplies, transportation, etc. (in cents per 1,000 feet or per cord).
- (*c*) Total cost of examination (in cents per 1,000 feet or per cord).

Office work:
- In local office (in cents per 1,000 feet or per cord).

Field work:
- (*a*) Marking (in cents per 1,000 feet or per cord).
- (*b*) Scaling (in cents per 1,000 feet or per cord).
- (*c*) Brush burning (in cents per 1,000 feet or per cord).
- (*d*) Check scaling (in cents per 1,000 feet or per cord).

Administration:
- (*a*) Supervision (in cents per 1,000 feet or per cord).
- (*b*) Total cost per 1,000 feet or per cord of administration.

Area of sale.....

Amount of timber cut.....

Species.....

Price.....
(Per cord or per 1,000 feet b. m., etc.)

Total cost of sale.....
(Per cord or per 1,000 feet b. m.)

Remarks.....

.....

.....

(Reasons for high or low costs. If sale is not closed, what will be the probable cost? Are data approximate or exact?)

ADMINISTRATIVE USE OF TIMBER.

Timber may be disposed of under the administrative use regulation (Regulation S–17) by sale, under free use, or otherwise to remove an actual menace from insects, fire, disease, or other sources. Timber may be removed under this regulation when it is necessary for the construction, maintenance, or repair of permanent improvements upon National Forests or for experiments conducted by the Forest Service. Exchanges of timber for labor, services, or material in the building of permanent improvements are, however, not authorized.

Purpose of administrative use.

Under this regulation the district foresters may authorize supervisors to dispose of timber by administrative use in amounts depending upon the conditions on the Forest and the experience of the supervisor, within the amount which each supervisor is authorized to sell.

Authority of district foresters and supervisors.

When an application is received or the supervisor believes from personal knowledge or from the reports of Forest officers that timber should be disposed of under administrative use, he will direct a field examination and the preparation as soon as practicable of a map and a complete report in accordance with Forms 578a and 578b.

Field examination.

If it is found that because of disease, insect attack, or other cause a body of timber is a menace to the Forest, it will, if possible, be removed promptly with as little expense as possible, preferably by sale, and in such a manner as to reduce to a minimum the future danger. When a sale can not be made and regular free use will not remove the timber soon enough to prevent loss, administrative use permits will be issued.

Methods of disposal.

Forester's administrative use permits will be prepared in quintuplicate, and district forester's in quadruplicate. The permits will be executed in duplicate, and the executed copies forwarded to the Forester or district forester, as the case may be, for approval with the report and recommendations of the supervisor. The approved original will be filed in the district office, the duplicate transmitted to the permittee and copies furnished the supervisor and local officer in charge. The fifth copy, in Forester's permits, will be retained in the Forester's files.

Forester's and district forester's permits.

The card record on Form 615 in the supervisor's office will be kept as an index card and record of the amounts cut as in sales.

Card records.

The permit will be prepared in triplicate. The original is for the permittee, the duplicate for the supervisor's files, and the triplicate for the ranger.

Supervisor's administrative permit.

Form of permit.

In preparing the permit the following form will serve as a guide:

ADMINISTRATIVE USE PERMIT.

....., ... National Forest. .....,
(Date of application.) (I or we)

.....
(If copartnership, give names and addresses of individuals, followed by "partners doing business under

.....
the firm name and style of ;" if corporation, "A corporation organized and existing under the

.....
laws of the State (or Territory) of , having an office and principal place of business at

....., hereby apply for permission to take, within .... months from above
.")

date, all .....
(Describe nature of injury to timber, such as attack by insects, fungus, mistletoe, etc.)

marked or designated for cutting by the Forest officer, the removal of which is actually necessary to protect the forest from ravages or destruction, located on an area to be definitely designated by the Forest officer before cutting begins in .....
(Give approximate

.....
location and describe by relation to some well-known landmark, stream, etc. Give also legal subdivision

.....
if surveyed and approximate legal subdivision if unsurveyed.)

estimated to be .....
(Give quantity, species, and material.)

If this application is approved ..... agree, in consideration of the granting
(I or we)
of the privilege herein applied for, to cut and remove said timber in strict accordance with the following and all other regulations and instructions governing National Forests prescribed by the Secretary of Agriculture.

.....
(Insert regulations to govern cutting and removal of the timber.)

Signed in duplicate this ..... day of ....., 19..

Witnesses:

....
(Signature.)

.....

Approved at ....., under the above conditions, ... 19...

.....
(Signature of approving officer.)

.....
(Title.)

Bond, when required.

Bonds will be required only in exceptional cases when necessary to insure faithful compliance with the conditions of the permit.

Supervision of cutting.

Forest officers will designate cutting areas and mark the timber to be removed as in timber sales. All administrative use of timber except that cut or used for permanent improvements on the National Forests will be scaled, counted or measured, and stamped.

Ranger's record of administrative-use permits.

The ranger will file his copy of the permit alphabetically by name of the permittee. When the case is closed or the permittee is notified that the cutting area is in a satisfactory condition, the date of closing or notice and the amount and value of material secured will be entered on the back of the permit.

Report of timber cut.

Timber cut under administrative use except that cut or used in connection with permanent improvements on the National Forests will be included in the ranger's annual free-use reports to the supervisor.

Closing.

As soon as the conditions of the permit have been complied with, the permittee will be notified by the supervisor that the cutting area is in a satisfactory condition and the administrative use closed.

TIMBER SETTLEMENT.

Settlement for timber cut, damaged, killed, or destroyed on the National Forests in connection with the enjoyment of any special-use privilege is called a timber settlement.

Payment on the basis of estimate or scale.

Where the timber will be killed or destroyed but not removed, or in those cases where it will not be worked into measurable form, or where the cutting is done in such a way that scaling is impracticable, settlement may be required on the basis of estimate. In all cases where the timber can be scaled, measured, or counted, it will be paid for according to the scale, measure, or count, as in a timber sale, and the procedure will be identical.

A charge for timber settlements on the basis of current stumpage rates for timber of like quality and accessibility included in sales will be made for all classes of material which have to be cut and destroyed and which are commonly salable upon the Forest. A charge will not be made for classes of material which are not commonly salable on the Forest, or, ordinarily, for reproduction. The basis for this procedure is that the ground rental under the occupancy permit covers the probable future returns from timber growth; or when no rental is charged that the land is being put to a higher use and the people as a whole are benefited more than if it had been retained in the production of timber.

Payment for timber on claims.

When a right of way permitted under an act of Congress crosses an unpatented agricultural or mining claim, whether the claim antedates the right of way or not, and whether the claim is apparently held in good faith or not, if timber is cut and removed in clearing the right of way, payment will be made to the United States in all cases except where the removal of the timber is necessary for the purpose of clearing the land in good faith for cultivation or for development, or when at the time of cutting the timber is actually needed by the claimant for use in making improvements on the land embraced in his entry or location. If any such claimant should need timber for the purposes above specified and should be unable to obtain it on his claim, he will be allowed to take timber under free-use permit from lands of the United States for those purposes up to the amount cut from the claim for which the United States has received payment. It is therefore necessary to keep separate records of the timber estimated upon or cut from each claim.

Procedure: Forests.

When timber is involved in a special-use case, the Forest officer making the examination will report on the timber to be cut, damaged, killed, or destroyed, giving the information called for by Form 578a and an estimate of the timber on Form 578b. In addition to the usual recommendations in timber sales, this report will contain recommendations as to whether

the timber should be paid for on the basis of the estimate or actual scale, and state when cutting or destruction is likely to take place.

Upon the receipt of these papers, the supervisor will record the case as in "Unadvertised Sales," using a white card (Form 615) stamped "Timber Settlement," which will be filed with the Timber Sale cards.

Timber settlement clauses.

Special clauses covering payment for timber cut or destroyed in connection with occupancy permits and the disposition of refuse are included in the various forms or stipulations as follows:

Form 832, special-use permit, clauses 5 and 9.

Form 80, railroad stipulations, clauses 1 and 2.

Form 81, stipulations in connection with irrigation, municipal, and mining easements, clauses 1 and 2.

Form 59, preliminary water-power permit, clause 6.

Form 61, water-power stipulation, clauses 23, 24, 26, and 27.

Form 63, transmission-line permit, clauses 4 and 6.

Such modifications should be made in these clauses as are necessary to adapt them to the particular conditions in each case.

The following clause should be inserted in stipulations or permits involving the use of drivable streams, when practicable and necessary to protect the interests of the Government in future timber sales:

To maintain suitable gates in the dam to provide for the driving of timber down the ..... River or stream at such times as, in the judgment of the Forest officer, will not cause undue interference with the operation of the plant.

Deposits.

Deposits will be required in advance of cutting or destruction.

Cutting reports.

Letters of transmittal and cutting reports, if payment is made upon the actual scale, will be handled as in timber sales. In cases in which settlement is made on the basis of an estimate, one cutting report stating the total estimated amount cut or destroyed will be submitted upon completion of the work.

Utilization.

If the timber is cut, utilization as complete as in current timber sales will be required.

How reported.

Timber in settlements will be included in reports of timber "sold" and "cut."

Closing.

Timber settlements will be closed when cutting is finished and brush properly disposed of, or if no timber is cut, when construction work is completed, independently of special-use permits or rights-of-way stipulations. If timber is damaged or destroyed subsequent to the closing of the timber settlement, the case may be reopened.

When referred to district forester.

If the amount of timber involved in a special-use permit is more than the supervisor is authorized to approve in a sale, the case will be referred to the district forester with the report on Forms 578a and 578b and drafts of timber settlement clauses to be included in the permit.

The supervisor's report and the drafts of clauses in every special use or Interior Department right of way which involves a timber settlement will be scrutinized with reference to payments, prices, and policy. The approved draft of the clauses and a letter of instructions will be sent to the supervisor in connection with the action taken upon the special use.

FREE USE OF TIMBER AND STONE.

Limitation of cut.

As provided for on page 13, the supervisor of each Forest annually on April 1 will recommend to the district forester the maximum amount of timber which may properly be cut under free use during the ensuing fiscal year, which amount shall form a part of the maximum cut for the Forest. The free use maximum shall be based upon silvicultural conditions, the provisions of the working plan if one has been prepared, the amounts which have been cut under free use during past years, and the probable amount which will be needed during the ensuing year and which may be cut under the existing policy. The procedure in the district office will follow that outlined on page 14.

The free use of timber and stone on National Forests may be granted to bona fide settlers, miners, residents, and prospectors for minerals, for firewood, fencing, building, mining, prospecting, and other domestic purposes.

Object of free use.

The object of free use is to assist prospectors in their work and to encourage and assist settlers who have not on their own land or claims, or on lands controlled by them, a sufficient and accessible supply of material suitable for the purposes named in the law.

To whom granted or refused.

Whether an applicant is entitled to free use must be decided by the proper Forest officer. In all cases not clearly covered by the letter of the law and the regulations he will be guided by their spirit, especially as indicated by the expression "Those who may not reasonably be required to purchase," and by the distinction between public or personal and commercial use. A member of a corporation is not necessarily debarred from free use of fuel for his own home, although his ability to secure it from another source will be considered, especially if the Forest supply is limited and in demand by more needy applicants. Residents of towns and villages engaged in business or earning a livelihood are reasonably expected to purchase building material for town dwellings and other home structures, and, except in small villages, for fuel. Settlers, particularly under the Forest homestead act, who have not yet improved their homes, may receive a liberal allowance for their own use. There is no more reason for giving a hotel keeper or merchant timber solely to build or warm his hotel or store than giving him a stock of goods, yet it need not be refused the proprietor of a small establishment when it will be used chiefly by himself and his family. Prospectors may be assisted to develop their properties, but owners of producing mines and those who are able to employ several or many men on wages will be required to pay. Well-to-do stockmen and owners of large ranches may reasonably be required to purchase.

Free use of timber may be allowed in connection with other uses of the National Forests regardless of the ability of the permittee to purchase; if the timber will be used in improvements the benefit of which will be essentially public rather than individual, or if the stumpage value of the timber used is less than the value of these improvements for protective purposes, or for administrative purposes considering both the actual use of the improvement and the increased value of the Forest through better regulation. Ordinarily, improvements under these provisions should be constructed with the understanding that they will become the property of the United States at the termination of the permit. A clear line can usually be drawn between improvements which are necessary and of benefit only to the permittee in conducting his business and those which result in the improvement and better regulation of the Forest.

Free use may be refused in the discretion of the supervisor to permittees who repeatedly violate the provisions of their permits and interfere with the efficiency of the free use administration. Free use may reasonably be refused where the final cost to the permittees is as great as if the material were purchased, whether or not agents are employed to obtain the material. Free use of timber from alleged invalid claims may be granted for fuel only, pending the final determination of title to the claims.

Valuation of material. The appraisement of free use material will not be less than for sales in the same locality on the Forest from which the timber is to be taken.

Schedule of rates. Supervisors will issue at the beginning of each fiscal year a schedule of standard rates for free use material based upon the current timber sale rates. The rate for the same class of material may be varied in different districts if the conditions warrant. In general, posts will be valued at a specified rate per post, and poles at a specified rate per linear foot. Cordwood will never be measured on the basis of board feet. Dead timber will be valued at the same price as green in National Forests where the prices are equal in sales.

Restrictions. The free-use privilege will be restricted so far as possible to diseased, defective, dying, and dead and down timber, the use of which will be encouraged. Green timber, however, may be obtained except as provided for in the regulations or the supervisor's instructions, when it is necessary for the particular needs of the applicant. Every possible attempt will be made to improve and protect the Forest by locating free use where the timber can best be spared or where it constitutes a menace, by confining the cutting in green timber so far as possible to inferior trees and inferior species, and where necessary or advisable for economic reasons or to insure reproduction by limiting the cut of green timber or prohibiting it altogether.

The duration of permits, which will not exceed the time necessary to remove material, will be fixed by the issuing officer, but all permits must terminate on or before June 30 of each year.

Transients and emergency use. The small amount of material actually needed by transients may be taken without a permit. In cases of great emergency material may be taken without a permit, but the fact should at once be reported to a Forest officer with the request that a permit be issued.

Administration.

The administration of free use will be conducted mainly by the supervisors and rangers, subject to the general policy, restrictions, and instructions herein outlined, or prescribed by the district forester. It is the duty of Forest officers to cheerfully furnish assistance to applicants, to act promptly upon all applications, and in general to follow as liberal a policy in the matter of free use as the interests of the National Forest and the proper performance of their work will allow. Although simple methods and the exercise of judgment are encouraged, there should be no tendency to underrate the importance of the free-use business.

Every effort will be made to improve the Forest and to reduce the cost of the administration of free use and yet give Forest users prompt attention. Utilization of all trees cut, as complete as in sales, as well as careful disposal of refuse, must be required. Officers in charge of cutting will be held responsible for seeing that no unnecessary damage is done to reproduction, young growth, or standing timber. There should be no failure on the part of the Forest officer to make all points clear to applicants before permits are granted.

When numerous applications for free use are expected, Forest officers will notify the public, in any convenient manner, that they will be at designated places on certain days, prepared to transact free use and other National Forest business.

Permit areas.

Wherever possible the work of handling the free-use business will be reduced by designating temporary permit areas, preferably in dead timber. These will be mapped and reported to the supervisor, who, if he approves, will authorize the ranger to mark or specify the timber which should be removed and to designate the boundaries. Great care should be exercised in establishing such areas, and their boundaries must be clearly designated. After issuing a permit, the Forest officer may send the permittee to this area, thus avoiding the necessity of a visit to the timber with each applicant before cutting. Each applicant, who will be held responsible for his cutting on the area, will be required to clear up the débris resulting from his own cutting.

Marking.

Forest officers will designate the timber to be cut in the simplest and most economical way practicable. Living timber will be marked in accordance with the principles outlined under timber sales, and the detailed instructions for marking issued by the district forester or supervisor. In the case of dead timber, an area may be blazed or defined by natural boundaries, and the class of trees to be taken specified.

Scaling.

The scaling or measuring of free-use material may be omitted when it would require long special trips or engage considerable of the ranger's time that could be more economically employed on other work. A sufficient check should be maintained by the ranger to be certain that the regulations governing free use are complied with.

Supervisors and deputy supervisors will investigate the conduct of free-use business, both in the field and in the ranger's records, as often as possible, to see that the cutting is in accordance with silvicultural requirements, that utilization is complete, that the public is properly served, that the cases are closed promptly on expiration, and that the free-use policy for the Forest is being followed.

Cutting reports will be required by supervisors only when they consider them necessary in large permits to check the rate of cutting and the amount as against that fixed in the permit.

Cutting reports.

Rangers' free-use permits will be issued in duplicate on Form 874–8. The approved original will be transmitted to the permittee and the ranger will retain the duplicate copy, which will be filed alphabetically by the name of the permittee in a promise card box. For convenience in closing, all permits will be made to expire at the end of a month. When a case is closed the date of closing and the amount and value of material secured will be entered on the back of the permit.

Rangers' records.

If Form 874–8 is used in supervisors' or district foresters' permits the original will be sent to the permittee and a carbon filed by the ranger with other permits. If a special form is necessary which can not be conveniently filed with the Form 874–8 permits an index card will be used and the permit filed with timber sales. Rangers will recommend the closing of supervisors' and district foresters' permits and immediately close the case in their own files. No record of rangers' permits will be kept in the supervisors' offices.

Supervisors' permits will be prepared in triplicate on Form 874–8, or on a special form similar to Form 202 when necessary. The approved original will be transmitted to the permittee. The supervisor will retain the duplicate and forward the triplicate to the ranger. Supervisors may require reports in large or unusual cases.

Supervisors' permits.

When an application exceeds the supervisor's authorization, he will prepare a permit in triplicate, which, with the necessary report and recommendations, will be forwarded to the district forester in duplicate for approval. After approval the permit and report will be returned to the supervisor, who will transmit the original to the permittee, one copy to the ranger, and retain one copy. No record of individual cases will be kept in the district office.

District foresters' permits.

Whenever application is made for free use of timber to an amount exceeding the authorization of the district forester the application must be submitted to the Secretary of Agriculture for approval if the value exceeds $500, and to the Forester if within this amount and above the authorization of the district forester. When so approved the district forester will issue the permit following the procedure outlined under "District forester's permits."

Secretary's and Forester's permits.

At the end of each fiscal year, or at other times if required by the supervisor, each ranger will submit a report giving separately for live and dead timber the number of permits issued and the quantity and value of material actually used by the permittees. This report will cover all free-use and administrative-use permits, including those approved by supervisors and district foresters. Such reports will be incorporated in the supervisor's annual statistical report to the district forester.

Rangers' reports.

Temporary free-use areas from which only dead fuel or dead fence material, or both, may be taken prior to securing a permit will be recommended by supervisors and approved by district foresters only where it is evident

Temporary free-use areas.

that there will be substantial compliance with the law, where danger will not result, and where the elimination of routine will result in a material reduction in the cost of administration.

Free-use areas will preferably include large quantities of dead timber and will be closed as soon as the supply is exhausted.

Forest officers will see that the utilization on free-use areas is reasonably complete.

The cutting of timber by other persons or for other purposes than those named in the law or for sale is forbidden.

TIMBER SALE AND FREE-USE FORMS.

Form 941.
(Revised Dec. 1, 1911.)

UNITED STATES DEPARTMENT OF AGRICULTURE,
FOREST SERVICE.

(Attach clipping of notice here)

BID FOR ADVERTISED TIMBER.

....., *19*

..... Timber Sale.

..... National Forest.

.....
(The district forester or Forest supervisor)

.....
(City or town)

.....
(State)

DEAR SIR: In response to the notice of sale published in.....
(Name of newspaper)

of....., ..., ...bid for the
(Town) (State) (I or we)

timber advertised to be cut from.....
(Locality)

.....
(If surveyed, give legal subdivisions; if unsurveyed, give metes and bounds with reference to some well-known landmark)

.....in the .....National Forest, as follows:

Estimated amount in feet board measure, cords, or pieces.	Species. (If different prices are offered for dead and living timber, make separate entries.)	Price bid per 1,000 feet, cord, or piece.
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....

I have remitted, under separate cover, to the.....National Bank of..... (U. S. depository) $....., to accompany this bid, as required by the published notice of sale.

Very truly yours,

.....
(Name of bidder)

.....
(Full address)

Form 202.
Revised Oct. 15, 1911.)

UNITED STATES DEPARTMENT OF AGRICULTURE

FOREST SERVICE

TIMBER SALE.

.....National Forest.
(Date of application)

.....,.....
(I or we) (If copartnership, "We, and

.....
partners, doing business under the firm name and style of ") (If corporation, "A corpo-

.....
ration organized and existing under the laws of the State (or Territory) of , having an

.....
office and principal place of business at ")

of....., State of....., hereby.....
(In application, "apply," in final agreement, "agree.")

.....to purchase.....
(In final agreement only, "In

.....
accordance with my (or our) bid submitted in pursuance of the notice of sale of certain timber in the

.....
National Forest, duly given by publication as required by law," if sale has been advertised and

.....
bid accepted. If private sale, when timber has been advertised and no satisfactory bid has been received,

.....
"at private sale, certain timber within the National Forest , duly

.....
advertised for sale in the , a newspaper of general circulation in the State (or Territory)

.....
in which said Forest exists, by notice published for not less than 30 days before , 19 . Said timber

.....
is")
all the merchantable dead timber standing or down and all the live timber.....

.....for cutting by a Forest officer located on an area of
("Marked" or "designated.")
about.....acres to be definitely designated by a Forest officer before cutting

begins in.....
(Give approximate location and describe by relation to some well-known landmark,

.....
stream, etc. Give also legal subdivisions, if surveyed, and approximate legal subdivisions if unsurveyed.

.....
If advertised, description of location should follow that given in notice of sale.)

.....within the ..... National

Forest, estimated to be.....
(Give by species the quantity in proper unit of measure, state whether live

.....
or dead, and kind of material, and add the words "more or less.")

.....
("If this sale is awarded to me (or us)" in application only.) (I or we.)
do hereby, in consideration of the sale of this timber to ....., promise to pay
(Me or us.)

to the ..... National Bank of ..... (United States depository) or such other depository or officer as shall hereafter be designated, to be placed to the credit of the United States,.....
(In final agreement, "the sum of .....
dollars ($), more or less, as may be determined by the actual scale, measure, or count.")
for the timber at the rate of.....
(In application, "not less than.")
.....
(Per thousand feet b. m., cord, linear feet, etc.)
in advance payments of at least ..... dollars ($.....) each when called for by the Forest officer in charge.....
(If application for advertised sale, "$50 being forwarded to the said United .....
States depository at this time to cover cost of advertising, this amount to be placed to my (or our) credit if .....
I am (or we are) the successful bidder, or refunded if my (or our) bid is rejected.")
credit being given for the sums, if any, heretofore deposited with the said United States depository or officer in connection with this sale.

And ..... (I or we.) further promise and agree to cut and remove said timber in strict accordance with the following conditions and all regulations governing timber sales prescribed by the Secretary of Agriculture:

1. Timber upon valid claims and all timber to which there exists valid claim under contract with the Forest Service is exempted from this sale.
2. No timber will be cut or removed until it has been paid for.
3. No timber will be removed until it has been scaled, measured, or counted by a Forest officer.
4. No timber will be cut except from the area specified by a Forest officer. No live timber will be cut except that marked or otherwise designated by a Forest officer.
5. All merchantable timber used in buildings, skidways, bridges, construction of roads, or other improvements will be paid for at the price herein specified.
6. All cutting will be done with a saw when possible.
7. No unnecessary damage will be done to young growth or to trees left standing, and no trees shall be left lodged in the process of felling. .....
(Unmarked or undesignated.)
trees that are badly damaged during the process of logging will be cut if required by the Forest officers, and when such damage is due to carelessness, the trees so injured will be paid for at twice the price herein specified.
8. The approximate minimum diameter limit at a point 4½ feet from the ground to which living trees are to be cut is.....
(Limits in inches for all species involved. When individual .....
trees are marked for cutting, "Trees above these diameters may be reserved for seed or protection, and .....
merchantable trees below these diameters may be marked at the discretion of the Forest officer." When .....
other methods of cutting are advisable, insert suitable provisions so that the system of cutting and method .....
of designation will be clear.)
9. Stumps will be cut so as to cause the least possible waste and will not be cut higher than ..... inches on the side adjacent to the highest ground—lower when possible—except in unusual cases when, in the discretion of the Forest officer, this height is not considered practicable.
10. All trees will be utilized to as low a diameter in the tops as possible so as to cause the least waste, and to a minimum diameter of ..... inches when merchantable in

the judgment of the Forest officer; the log lengths will be varied so as to make this possible.

11. Tops will be lopped and all brush piled compactly at a safe distance from living trees, or otherwise disposed of, as directed by the Forest officer.

12. All timber will be cut and removed on or before and none later than .....

....., and at least ..... will be paid for, cut, and removed
(Feet b. m., cords, etc.)

on or before ....., 19.., and at least ..... of the remainder of the estimated amount during each year of the remaining period.

13. Timber will be scaled by Scribner Decimal C log rule, or counted or measured as prescribed by the Forester, or specifically provided in this agreement, and, if required by the Forest officer, will be piled or skidded for scaling.....
("Measurement" or
..... as directed by the Forest officer.
"count" if cordwood or other material is involved.)

14. All marked or designated trees and all dead timber sound enough for lumber of any merchantable grade or timbers .....
(Insert cordwood or other material to be included in the sale.)
shall be cut. Unmarked or undesignated living trees which are cut; marked or designated trees or merchantable dead timber left uncut; timber wasted in tops, stumps, and partially sound logs; trees left lodged in the process of felling; and any timber merchantable according to the terms of this agreement which is cut and not removed from any portion of the cutting area after logging on that portion of the cutting area is completed, or is not removed from the National Forest after the expiration of this agreement, shall be scaled, measured, or counted, and paid for at double the price herein specified.

15. During the time that this agreement remains in force ..... will, independently, do all in ..... power to prevent and suppress forest fires on the
(I or we.) (My or our.)
sale area and in its vicinity, and will require ..... employees and contractors
(My or our.)
to do likewise. ..... hereby agree, unless prevented by circumstances over
(I or we.)
which ..... have no control, to place ..... and .....
(I or we.) (Myself or ourselves.) (My or our.)
employees at the disposal of any authorized Forest officer for the purpose of fighting forest fires, with the understanding that if the fire does not threaten .....
(My or our.)
property or the area embraced in this agreement ..... shall be paid for services so rendered at the rate or rates to be determined by the Forest officer in charge,
(I or we.)
which rate or rates shall correspond to the rate or rates of pay prevailing in the ..... National Forest for services of a similar character at the time the services are rendered, provided, however, that if ....., ...
(I or we.) (My or our.)
employees, subcontractors, or employees of subcontractors are directly or indirectly responsible for the origin of the fire, ... shall not be paid for services so rendered.
(I or we.)

16. So far as is reasonable, all branches of the logging shall keep pace with one another, and in no instance shall the brush disposal be allowed to fall behind the cutting, except when the depth of the snow or other adequate reason makes proper disposal impossible, when the disposal of brush may, with the written consent of the Forest officer in charge, be postponed until conditions are more favorable.

17. Necessary logging roads, chutes, camps, buildings or other structures shall be located as agreed upon with the Forest officer in charge. All such improvements not removed within.....months after the expiration of this agreement shall become the property of the United States.

.....
(Insert special conditions, if any.)

The title to the timber included in this agreement shall remain in the United States until it has been paid for and scaled, measured, or counted, as herein provided.

The decision of the Secretary of Agriculture shall be final in the interpretation of the regulations and provisions governing the sale, cutting, and removal of the timber covered by this agreement.

Work may be suspended by the Forest officer in charge if the conditions and requirements contained in this agreement are disregarded, and the failure to comply with any one of said conditions and requirements, if persisted in, will be sufficient cause for the Forester to revoke this agreement and to cancel all permits for other uses of the National Forest.

No Member of or Delegate to Congress, or Resident Commissioner, after his election or appointment, and either before or after he has qualified, and during his continuance in office, shall be admitted to any share or part of this contract or agreement, or to any benefit to arise thereupon. Nothing, however, herein contained shall be construed to extend to any incorporated company, where such contract or agreement is made for the general benefit of such incorporation or company. (Section 3741, Revised Statutes, and sections 114 to 116, Act of March 4, 1909.)

Refund of deposits under this agreement will be made only at the discretion of the Forester or district forester.

This agreement will not be assigned in whole or in part.

The conditions of the sale are completely set forth in this agreement, and none of its terms can be varied or modified except with the written consent of the Forester.

..... (or, "the district forester" in district forester's sales, or, "the supervisor" in supervisor's sales.)

No other Forest officer has been or will be given authority for this purpose.

And as a further guarantee of a faithful performance of the conditions of this agreement ..... (I or we deliver herewith a bond in the sum of $,) and do further agree that all moneys paid under this agreement shall, upon failure on ..... (my or our) part to fulfill all and singular the conditions and requirements herein set forth, or made a part hereof, be retained by the United States to be applied as far as may be to the satisfaction of ..... (my or our) obligations assumed hereunder.

Signed in duplicate this ..... (same date as bond) day of....., 19...

(Corporate seal if corporation.)

Witnesses: [1]

....
(Signature of purchaser. See note.)

....
(Signature of purchaser.)

Approved at ....., under the above conditions, ..., 191...

.....
(Signature of approving officer.)

.....
(Title.)

NOTE.—If contracting party is a copartnership, form of signature should be

X. Y. Z. COMPANY,
By JOHN DOE,
A member of the firm.

If contracting party is a corporation, form of signature should be

X. Y. Z. COMPANY,
By JOHN DOE,
President (or other officer or agent).

[1] Signature of two witnesses required if sale is over $100.

Form 377.
(Revised Dec. 1, 1911.)

UNITED STATES DEPARTMENT OF AGRICULTURE.

FOREST SERVICE.

BOND.

KNOW ALL MEN BY THESE PRESENTS: That we ..... (Names of principals.)
.....
of .....,
as principal, and ..... (Names of sureties.)
....., as
sureties, are held and firmly bound unto the United States of America in the sum of ..... dollars ($.....), for the payment of which sum well and truly to be made to the ..... National Bank of .....,
or such other depository or officer as shall hereafter be duly designated by the United States, to be placed to the credit of the United States, we bind ourselves and each of us, our and each of our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

The condition of this obligation is such that whereas the above bounden .....
..... (Names of principals.)
has by a certain ..... (Application or agreement.) ..... (Signed or executed.)
by ..... on this ..... day of ....., 19...

NOW, THEREFORE, If the said ..... (Names of principals.)
.....
shall well and truly perform all and singular the promises and agreements in said ..... (Application or agreement.) contained, then this obligation shall be void, otherwise to remain in full force and effect.

IN WITNESS WHEREOF, The parties hereto have executed this instrument this ..... day of ....., 19.., at .....
(Corporate seal if corporation.)

..... [SEAL.]
(Principal.)
..... [SEAL.]
(Principal.)
..... [SEAL.]
(Surety.)
..... [SEAL.]
(Surety.)

ACKNOWLEDGMENT OF PRINCIPAL.

STATE OF....., COUNTY OF....., *ss:*

On this.....day of....., 19.., before me..... (Name of notary.)
....., a notary public, in and for ....., residing therein, duly sworn and acting under a commission expiring ....., 19.., personally appeared
..... (Name of principals.)
known to me to be the.....*of the*..... (Title.)
..... (Name of purchasing company.)
the corporation that executed the above instrument, and known to me to be the person who executed the above instrument *in behalf of the said corporation*, and..... acknowledged to me that he *said corporation* executed the above instrument, as principal, voluntarily for the uses therein specified.

WITNESS my hand and official seal the date first in this certificate above written.

[SEAL.] .....
Notary Public.

N. B.—Italics are to be stricken out when bond is executed by individuals and not by corporations.

ACKNOWLEDGMENT OF SURETIES.

STATE OF....., COUNTY OF....., *ss:*

On this.....day of....., 19.., before me.....
(Name of notary.)
....., a notary public, in and for....., residing therein, duly sworn and acting under a commission expiring....., 19.., personally appeared
.....
(Name of sureties.)
known to me to be the.....*of the*.....
(Title.)
.....
(Name of surety company.)
the corporation that executed the above instrument, and known to me to be the person who executed the above instrument *in behalf of the said corporation*, and each acknowledged to me that he *said corporation* executed the same as surety, voluntarily for the uses therein specified.

WITNESS my hand and official seal the date first in this certificate above written.

[SEAL.] .....
Notary Public.

N. B.—Italics are to be stricken out when bond is executed by individuals and not by corporations.

OATH OF SURETIES.

[Must be used when individuals are sureties.]

STATE OF....., COUNTY OF....., *ss:*

.....and.....
(Name of surety.) (Name of surety.)
being duly sworn, each for himself says that he is a citizen of the United States and a resident of.....; that he signed the above bond as one of the sureties thereon; that he is worth the sum of.....in property in the .....of his residence over and above all legal liabilities and exemptions, and that he has property therein subject to sale on execution worth the sum of.....

.....
(Surety.)

.....
(Surety.)

Subscribed in my presence by.....and
(Name of surety.)
....., and by each of them sworn to before me
(Name of surety.)
this.....day of....., 19...

WITNESS my hand and official seal the date last above written.

[SEAL.] .....
Notary Public in and for the County of.....*State of*.....

My commission expires .....

CERTIFICATE OF SOLVENCY.

[To be filled in when sureties are individuals.]

I hereby certify that I have made due and diligent personal inquiry as to the ability of the signers of the foregoing bond, and am satisfied that they are good and sufficient and fully responsible each for the sum of ..... dollars.

.....
(Title.)

....., 19..
(Day.)

Approved at....., ..., ..., 19...
(City.) (State.) (Date.)

.....
(Signature of approving officer.)

.....
(Title.)

Form 319.
(Revised August, 1908.)

UNITED STATES DEPARTMENT OF AGRICULTURE,

FOREST SERVICE.

MEMORANDUM OF CORPORATE OFFICER'S AUTHORITY TO SIGN INSTRUMENT.

When an agreement or other legal instrument is executed by a corporation, the Forester requires evidence of the authority of the person who signs on behalf of the corporation. Such evidence should be EITHER—
(1) A copy of the article of incorporation, or of the by-law giving the requisite authority, or
(2) A copy of the resolution of the board of directors giving the requisite authority.
In either case SUCH COPY SHOULD BE FOLLOWED BY a certification by the secretary of the company, under the corporate seal; the evidence of authority required would then be substantially in the following form:

.....
(Copy of article of incorporation, by-law, or resolution.)

.....

.....

.....

.....

I, ..., secretary of the .....

..... Company, do hereby certify that the foregoing is a correct copy of the article of incorporation (*or* of the by-law, *as the case may be*) which pertains to the powers of the ..... of said company (*or* of a
(Title of officer.)
resolution, and of the whole thereof, passed by the board of directors at a directors' meeting, duly called and assembled, and at which a quorum was present); that said article of incorporation (by-law *or* resolution, *as the case may be*) was, on the .....
(Date of executing contract.)
..... in full force and effect; and that on said date ..... was the .....
(Name of person signing instrument.) (Title.)
of the said company.

In witness whereof I have hereunto subscribed my name as secretary of the ..... Company and affixed the corporate seal of said company this ..... day of ....., 19..

[CORPORATE SEAL.] .....
Secretary of the .....

(Space for name on right-hand margin to be filled in before filing. Amount cut and value to be filled in on closing.)

Form 874–S.—Revised Dec. 1, 1911.

U.S. DEPARTMENT OF AGRICULTURE,

FOREST SERVICE.

Name,

FREE-USE PERMIT.

.....National Forest,

....., 191..

Permission is hereby granted to

.....
(Name of permittee.)

of.....
(Address.)

to take, within ..... months from above date, from.....
(Describe lands.)

.....

.....

the following-described timber:

.....
(Specify species and state whether

.....
dead or living; number of cords and

.....
value per cord; number of feet b. m.

.....
and value per thousand; number and

.....
dimensions of house logs, posts, or

.....
other special products, and rate of

.....
valuation.)

.....

.....

worth $....., to be used by said permittee.....
(How and where.)

.....
(OVER.)

Amount cut.

Value, $.

[REVERSE.]

(Space at bottom to be filled in by officer closing the case, on retained duplicate.)

In consideration of such permission said permittee agrees to—

1. Cut only such timber as is designated by a Forest officer.

2. Remove no timber until permission is given.

3. Conduct the cutting and dispose of the refuse as directed by the Forest officer.

4. Neither sell, give away, nor exchange any material taken.

5. Assist Forest officers to fight fire during the period of this permit without pay if the area covered by this permit is on fire or threatened; otherwise at the prevailing rate of pay.

6. Comply with all other regulations governing National Forests.

Permit granted under above conditions.

.....

.....
(Title.)

The cutting or taking of any timber under this permit makes all the conditions binding.

.....
(Date closed.)

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